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LECTURES
ON
MEDICAL JURISPRUDENCE,
NOW IN COURSE OF DELIVERY
AT THE
UNIVERSITY OF LONDON.

BY PROFESSOR A. T. THOMSON.

LECTURE XVIII.

PREGNANCY (*continued*):—*Infanticide, in the act of Parturition, or directly after Birth. First Inquiries to be instituted, on the discovery of the Body. State of the suspected Mother immediately before and after the supposed Delivery. Inquiry whether difficult labour or undesigned hæmorrhage has caused the death. Appearances of the Umbilical Cord. Question whether the Child was born alive. Age of the Fœtus. Instance of a surviving Child, born in the sixth month of Pregnancy. Negative proofs that a Child was born alive, from the absence of characteristic Putrefaction, and from the existence of Wounds and Contusions on the Body. Lividity of the surface, which is not the result of wilful injury. Sudden births, the Fœtus falling to the ground. Fractures of the long Bones in a Fœtus. Accidental Strangulation during Parturition. Death of an Infant from protracted supination after Birth. Death from neglect of its Warmth and alimentation.*

GENTLEMEN:—In my last lecture I offered you some remarks on criminal abortion, or the destruction of the fœtus in the womb; I have now to direct your attention to the destruction of the life of the child, either in the act of parturition or immediately after birth; or, in other words, to the crime of *infanticide*.

When the body of a new-born child is found dead, the investigation of the circumstance becomes a matter of medical evidence, independently of the facts connected with the situation in which it is found which lead to the supposition that it may have been murdered. But accident may even involve this part of the inquiry with many other circumstances besides the medical testimony, for if the body of the child have been found in the fields, or at a distance from any residence, and a medical man be called to see it, his testimony will be required not only respecting the actual condition of the body, and the probable causes of its death, but, also, respecting the nature of the spot where it was discovered; whether the body was fully exposed, or was partially buried; whether the ground near it bore any evident marks of delivery having taken place there; or whether it was probable that the body was brought to the spot and interred there, or exposed. Bodies of infants are often found in parts of dwelling-houses, not unfrequently in privies, or in gardens adjoining houses; in such cases it is the duty of a medical practitioner to inquire into the probability of some one or other of the female inmates being the mother; and, consequently, their condition at the time, and for some time previous, must be strictly investigated; whether the condition of any one of them indicates recent delivery; and whether the period of the pregnancy and the time of the delivery correspond, as to time, with the condition of the child.

So far as relates to the body of the child, the medical practitioner should recollect, that when a body is submersed in a privy before putrefaction has commenced, that process does not take place so soon as it does when a body is exposed to the air. But if putrefaction have commenced, then it proceeds more rapidly than in the air: this depends on the fact that air, in conjunction with moisture, is only required to commence the process of putrefaction, not to continue it. But no concealment of the delivery may have been attempted; yet, from the condition of the body of the child, even when it is found in bed, or near the person of the mother, its death may be ascribed either to neglect or to violence.

Now, in all these cases, the first object, after it has been discovered that a child has been born, is to ascertain who is its mother. Evidence of the birth of a child at the period in which it might live, is not difficult to be obtained, because it is scarcely possible that

a woman, under any circumstances, can be delivered beyond the sixth month without some female in the house being accessory to the fact. So far this part of the inquiry may be settled by moral evidence; but, notwithstanding, medical evidence is required to prove the indications of delivery observable in the supposed mother. The evidence to be derived from the condition of the supposed mother is to be grounded on those signs of pregnancy, and of delivery, which have been already detailed, and to accomplish this the law arms us with proper authority to inspect the person of the supposed mother. In making this examination we have several points to determine:—

1st. What was the general state of health of the female previous and subsequent to the supposed delivery?

2nd. Whether any persons were witnesses of her delivery?

3rd. Whether, in the event of ascertaining that she has been delivered, we can determine that this has been her first child?

4th. Whether the labour were easy or difficult, a matter of great importance; and, also, whether it were attended with hæmorrhage?

5rd. Whether the child were born alive?

6th. If it were born alive, to what cause its death is to be ascribed?

1. With regard to the first question, it is evident that no decided proof of pregnancy can be formed from the simple appearance of the woman, nor ought any, except the ballottement and auscultation, to be admitted as direct evidence; but if the body of a child have been found, and a very evident change have taken place in the appearance of a woman who was previously suspected to be pregnant at the time of the supposed birth of the child, then the presumptive evidence that that woman has been recently delivered is strong. This, however, must be satisfactorily proved by a variety of signs, which, taken in the aggregate, are very satisfactory; they are those which have been already detailed to you; and you are aware that no known condition of disease is capable of producing the aggregate of those signs referred to, whilst after delivery, more especially after that of the first child, they almost all occur. As I have already stated, however, in order to form a correct decision, the examination must take place before the tenth day after the supposed delivery.

2. 3. 4. The two next questions are altogether extra-medical; but the fourth is wholly medical, and the solution of it may either stamp criminality upon the supposed mother, or completely acquit her, even should no preparations have been made for her delivery. The causes of death during parturition, when no criminal intention can be traced, are (*A*) difficult labour, with premature evacuation of the waters, or liquor amnii; (*B*) the total or partial separation of the placenta; the premature expulsion of the funis, and its accidentally being twisted round the neck of the child.

A. In the first case, that of difficult labour with premature evacuation of the liquor amnii, the death of the child may generally be ascribed to a condition of the brain somewhat resembling apoplexy. In this event we must look for, and we generally find, a tumour of the vertex filled with sero-sanguinous fluid. But, instead of this condition, there may be fractures of the bones, or laceration of the scalp, or separation of the pericranium, and effusion under it. If from the position of these injuries, and the absence of any distinct sign of blows, or the application of any body in such a manner as could cause bruises, and if, at the same time, we can satisfy ourselves that respiration has never taken place, then we can have no hesitation to recommend the acquittal of the mother.

B. In the event of hæmorrhage occurring, the child may be innocently destroyed in two ways:—

a. The hæmorrhage may have arisen from the partial separation of the placenta, and that may so exhaust the system of the infant of blood, as to cause death during parturition; but this fact is easily ascertained, both by the obvious appearance of the hæmorrhage, by the condition of the child being that of anæmia, and by the mother, also, displaying signs of serious exhaustion.

b. The system of the child may be exhausted of blood by hæmorrhage, from the umbilical cord being left untied; but, if the cord have been cut, which implies knowledge, then the neglect to tie it is unfavourable to a woman accused of infanticide. Many distinguished obstetricians have contended that it is not necessary to tie the cord for the safety of the child; Fantoni, Alberti, Kaltsmidt, Capuron, and others, maintained this opinion; but if a mother who has given birth to a first child, and that a bastard, should neglect to put a ligature on the infantine portion of the cord, and, nevertheless, cuts it, then it may be a question whether this omission can be ascribed to ignorance; for if a person have not at all reasoned upon the nature of this medium of communication of blood between the mother and the infant, it is probable that the idea of hæmorrhage would naturally be that which should impress the mind as the result of cutting the cord and leaving it untied. But if, instead of cutting the cord, it be torn asunder, then neglecting to tie it may arise from ignorance, thence it can scarcely be brought forward as a proof of infanticide. A clever counsel may raise several questions upon this point, which it is proper that you should be prepared to meet. Thus, it may

be asked, "Does it not happen that when the cord has not been tied at all, and not divided until after the expulsion of the placenta, when all pulsation in the cord has ceased, the child may die?" This being a probable case, upon what signs are you to be justified in referring the death of a child to the navel cord not being tied? I reply, that as death from hæmorrhage of the umbilical cord must necessarily cause an empty state of the heart and the blood vessels, it is evident that the existence of such a condition of the circulating organs will fully justify the opinion that the child was killed. On the contrary, if the infant have been murdered, and the mother sets up a plea of hæmorrhage from the navel cord, arising from ignorance on her part, unless we find a deficiency of blood in the vessels, especially in the veins and in the cavities of the heart, we cannot attribute the death of the infant to this cause. Nor is the evidence of hæmorrhage, in this case, strengthened by the presence of a large quantity of blood about the spot where the body of the child is found, or on the linen in which it is rolled. These appearances may be produced by an artful woman, to lead to the supposition that the infant died from neglect, the result of ignorance. Under no circumstances, therefore, can we admit that the death of an infant has arisen from the want of tying the umbilical cord, and consequent hæmorrhage, unless the large vessels and the cavities of the heart be empty. FODERE has recorded a case of fatal issue from neglecting to tie the cord, the symptoms of which were extreme pallidness of the whole body; the umbilical cord was flaccid; the lungs floated with and without the heart; there was a complete vacuity of the heart; and the great veins, especially the vena portarum and ductus venosus, were also empty. The whole blood that could be collected from the body did not weigh two ounces.

But a child may be found with the umbilical cord cut and tied, and, nevertheless, if we find the same empty condition of the heart and large vessels, we may suspect foul play in that case, and, therefore, it is our duty to unmask the deception. If *less* than than three ounces of blood be found in the body we may conclude that the child died of hæmorrhage; on the other hand, if *more* than three ounces be found, we may conclude that it has not died of hæmorrhage.

5. The next question, namely, Whether the child was born alive? is the most important of any connected with our present subject. It is by such an examination only that we can determine whether the death of the child be an act of omission or of commission. It is, indeed, upon these two points that every fact to be elicited respecting infanticide is grounded.

With respect to the question, Whether the child was born alive? its solution can only be necessary when, on examination of the body, we are satisfied that the child had been born after the seventh month of uterine gestation, for the date of the viability of an infant cannot be fixed sooner than the end of the sixth month of uterine gestation, at the earliest period. There have been a few solitary instances of children living who were born at six months, and one case is recorded by by Dr. RODMAN, of Paisley,* in which a child lived who was born at nineteen weeks; but this is a very rare, almost a singular instance. When the child was three weeks old, it measured only eleven inches in length, and weighed two pounds and a half, avoirdupoise, in the clothes, and only twenty-nine ounces without them. The mother attributed the premature labour to fatiguing exertions on the preceding day. As this is an instructive and curious case I shall make no apology for reading the leading particulars of it, as published by Dr. RODMAN:—

"Being employed as accoucheur, on the 19th of April, 1815, when the mother, who had borne five children, was confident that the period of her gestation was less than nineteen weeks. I found that her constitution was good, as well as her health; that she attributed the premature birth to fatiguing exertions on the preceding day; and I had the happiness to deliver her of a living male infant. Not daring to allow the washing of this infant's body, he was speedily wiped and wrapped in flannel, with only an opening in the dress around the mouth, for the admission of air, and by the time the dressing was over, the mother was ready to take him into the warm bed with herself. It is common, if there be much apparent weakness, to feed a child the first twelve hours after birth, very frequently, yet in this instance, although the child was weak, no feeding was attempted till beyond that time; the nourishing with the mother in the bed was relied on.

"On the following day, the head, body, and extremities of the child were surrounded with fine cotton wool, pressed to appear like cloth, to the thickness of two or three folds, and over that the flannel, as before; and again the child was given to the mother in bed. His vital energy was so deficient, that, even with this dress, of himself he was unable to support the degree of warmth which was necessary to his existence, and no dependance was placed upon the heat of the fire; for when that mode of heating was tried, he eventually became weaker, whereas the warmth of the mother in bed rendered him lively and comparatively strong. Too much heat induced a sickly paleness of his face, with an obvious expression of weak-

* Edinburgh Medical and Surgical Journal, vol ii. p. 455.

ness in his countenance; and the abstraction of heat, even by tardily undressing his head, brought on a nervous affection, or starting of the muscles all over his body. From seeing how these morbid affections were induced, the child was kept regularly warm, by the mother and two other females lying alternately in bed with him, for more than two months; after which, the heat of the weather being considerably augmented, he became able himself, more and more, to retain the proportion of bodily heat required, and they left him oftener to be alone. When it was necessary to take him out of bed, and partly to undress him, (for he was never allowed fully to be undressed at one time,) every operation of this kind was quickly dispatched. On this account, neither the length nor weight of his body was ascertained till he was three weeks old, at which time the former was thirteen inches, and the latter, clothes and all, was two pounds and a half, avoirdupois: the weight of the clothes was found afterwards to be eleven ounces.

"It was extremely difficult to get the child to swallow nourishment the first week, and that which was principally used was toasted loaf-bread, boiled in water, with the addition of a little sugar, and strained, or passed through fine linen. He was frequently applied to the breast, in order to encourage the formation of milk, and also to give him a chance of some falling into his mouth. The yellow gum soon came on, and the thrush seized him so severely by the eighth day, that his tongue, lips, and palate, appeared as if covered with films of congulated milk; and as the portion of food he swallowed at any feeding time was very small, only three, four, or six, half tea spoonfuls, ten to twenty drops of weak beef-tea were now added to such a quantity as this. The European castor oil was likewise given him once or twice daily, from the quantity of six drops to that of nearly half a tea spoonful; and, without the use of other means, except a watery solution of borax, with which his lips were wetted a few times, and once a little manna, the thrush was cured by the end of the week. This was the time he began to swallow tea spoonfuls of his mother's milk freely; and in two days afterwards she was sensible of his exertions to suck. As these exertions grew stronger the feeding system was gradually diminished, and by and by he supplied himself with his natural food; yet the daily use of the castor oil was continued, but not to purging, for two months longer. Though he continued to suck, it was soon thought proper to give him a little of the fluid panada once or twice a day, to the daily quantity of which ten drops of red port wine were added. This plan is still followed, and the castor oil is seldom necessary. He appears uncommonly happy after his dose of wine panada. But it should be repeatedly recollected, that the panada is thin, the quantity small, and that every thing is done to him by the measurement of time. Of late he has been carried out occasionally in the open air; but the greatest care is taken to select the proper times of the day, and to regulate the length of time he is out. His age is nigh to four months, and his health and excretory functions are peculiarly regular."

6. The fact that the child has been born after seven months' gestation is determined chiefly by the weight of the child being from three to four pounds, its length nearly fourteen inches, (the position of the centre of the child being nearer to the sternum than to the umbilicus,) and the state of the development of its organs. These signs, indicating the period of uterine gestation, or the age of the fœtus, being settled, let us suppose that the body of a fœtus, evidently above seven months old, has been found dead, and that its death involves suspicion that it has been murdered, how are we to proceed to prove that it was born alive? The proofs on which we must rely are of two kinds,—*negative* and *positive*. Let us examine each of them.

a. Negative proofs.—The first negative proof is the absence of that kind of putrefaction which indicates that the child had died in the uterus, and had been retained in it for some time after its death. But it may be said that putrefaction may not take place, and yet the fœtus may be retained in the uterus so long as to be converted into adipocire. This is true, but it is a rare case. In general, it is expelled in from five to thirty days, and then it exhibits unequivocal appearances of putrefaction. When this is the case, the body has lost more or less of its consistence and firmness; the abdomen is generally inflated, with the epidermis partly detached, or removable by the slightest friction; the muscles are flabby, relaxed, and easily torn, and the umbilical cord is equally fragile; whereas after the child has breathed and lived, for however short a period after birth, there is a peculiar rigidity of the muscles, and general firmness of the body, which do not exist when the fœtal life has terminated in utero. When the infant has died in utero, the epidermis is detached, the skin assumes a purplish, or brownish-red colour, and in the cellular substance, just beneath the skin, some bloody serum is generally effused; the umbilical cord, being tender, is soft, infiltrated with serum, and livid; the thorax is flattened; the head falls into different shapes, becoming somewhat flattened from its own weight, as if the brain were in an almost pulpy state; and if an incision be made into the cranium a fœtid fluid is discharged.

Now, although these are the unequivocal

signs that a child has been some time dead in utero, yet it may be said that it does not point out whether the death have arisen from violence, or from natural causes. This, however, is a mistake; when violence has caused the death of a fœtus it is rarely, or never, retained so long in the uterus as to admit of the formation of these appearances. It is also essential to distinguish between this condition and that decomposition of animal bodies which takes place soon after death, in a child which has been born alive, and the body exposed to the air. In this case the body is soft and pultaceous, and a serous matter sweats out, which quickly changes in colour; the substance of the body sinks down, becomes greenish, and exhales a faint, nauseating odour; but the epidermis does not appear as if washed off, which is its aspect when the child has been dead for some time in the uterus before its birth.

You will readily comprehend, Gentlemen, that the cause of these differences is the nature of the medium in which the decomposition has been proceeding. When a child dies in utero, a kind of macerating process is carried on, similar to that which would occur were it retained for the same length of time in warm water. The decomposition is rather a solution of the parts in the fluid, than an actual change of the chemical affinities of their components, which is the result when the child has died after birth, and has been left exposed to the air.

b. A *second negative* proof is derived from the discovery that wounds have been inflicted upon the body. These have been, occasionally, inflicted in the act of parturition, even by midwives, who have aided the crime of infanticide, and who have been known to thrust sharp wires into the fontanelles. The children are thus murdered before they are suffered to come into the world, and, consequently, before respiration could have taken place, so that the child appears as if it had been born dead. Needles have, also, been thrust into the temples, the internal canthus of the eyes, and other parts. Fodere mentions a singular fact, that a midwife, in the middle of the last century, destroyed a great many infants, by thrusting a large needle into the spinal marrow, in the cervical portion of the spine. Her insanity was evident from the reason which she advanced as an excuse for the crime,—"De peupler de plus en plus le ciel,"—to maintain the population of heaven. It is extremely difficult to detect such wounds, but it must be attempted. The first step for detection is the examination of the scalp and neck. If there be any hair on the scalp, or on the back of the neck, both parts must be shaved. If the wounds have been made during the life of the infant, the surfaces will appear red and ecchymozed; if death have not instantly followed the wounds, their edges will be somewhat tumid, and the surrounding skin of a reddish hue; clots of blood will be found, also, either adhering to their surface or within them. When perforations intended to simulate wounds, have been made after death, an act which has been known to occur from hatred to the mother, with the intention of involving her in a charge of murder, there is no tumefaction of the edges or lips of the wounds; on the contrary, they are pale and thin; nor is there any ecchymosis; and if blood have oozed from the divided surface, it either remains fluid, or it forms clots which are not adherent.

c. A *third negative* proof is drawn from the appearance of contusions, if any appear on the body of the infant, for it is only during life that extravasation of blood is produced from contusions. Blows inflicted on a dead body cause no extravasation, as there is no circulating blood to flow to the injured part to cause it. The colour of a contused spot produced by a blow, a pinch, or a ligature during life, varies according to the time which the person may live after the injury is inflicted. If any of these injuries be productive of death, immediately after infliction, the parts will have a deep livid or leaden hue; if life have been sustained for a few days the colour will be yellowish green, or a citron hue, intermixed with violet. The infiltration of blood into the cellular tissue, also, produces some degree of tumefaction, and if it have taken place during life, there is an adhesion to the cellular tissue; but this is not the case when oozing occurs after death. When bruises are attempted to be produced after death, the colour is a uniform purplish brown, without elevation, as there is no true infiltration in the dead subject.

In forming our opinions of these matters we must be prepared to meet the question which is likely to be put by a counsel,—"Does not lividity of the surface take place when contusion has not been inflicted during life, nor any bruise after death?" Now it is true that after death, as putrefaction advances, and the coats of the vessels begin to give way, blood oozes out from them, and settles in the cellular tissue, under the skin, and livid patches are produced; but these are found only in the most dependant parts of the body, the back and thighs, and in the loose cellular tissue, as, for instance, that of the scrotum. When these are the result of commencing decomposition, it is indicated by the fœtid state of the body, and the nature of the fluid colouring the bruises.

Cases have occurred of children being strangled in the birth, by compressing the trachea with the fingers; but in such a case the impression of the fingers, or, at least, the compressed points, are perceptible either on each side of the trachea, or on the front

and the back of the neck, and, in general, coagulated blood is found in those parts.

Another question which you must, also, be prepared to meet is, Whether ecchymosis might not be the consequence of difficulties in the act of parturition, or from efforts of the mother to assist herself? The reply should be, that in severe labours, particularly in cases of deformity of the mother, tumefaction to a considerable extent, redness, and even rupture of vessels, may occur on the head; or the nates, whichever may present, or the thighs and loins, may appear bruised; and this is particularly the case when the child has been turned, and delivered by the feet, but that these appearances are easily distinguished from contusions. One criminal act of the mother which has occurred, namely, the compression of the head between the thighs, is of difficult detection; but along with the usual deformity and elongation of the head, arising from protracted and difficult parturition, there is generally some degree of separation of the pericranium, and effusion under it, if not fracture of the bones. FODERE, (vol. iv., p. 524, of his *Traité de Med. Légale*,) relates the trial of a widow, who was convicted of destroying her child in this manner, but acquitted, on the idea that it was involuntary. FODERE, after detailing this case, justly exclaims,—"On ne sait trop laquelle admirer davantage, ou de l'astuce et de l'addresse froidement calculée de cette femme, ou de la complaisance du jury qui a déclaré son crime involontaire!"

A third question may be, is it not possible that a child may be so suddenly born, as to fall on the ground and produce contusions, and concussion sufficient to cause death? In answer to this we have only to remark, that such sudden expulsions rarely occur in first labours, on which occasions the crime of infanticide is most common, and experiments have been made to determine the effect of falls from a given height on the cranium of children. These experiments, which were made by CHAUSSIER,* are much less conclusive than the observations of M. KLEIN, of Stutgard, detailed in the twelfth volume of the *Dict. de Médecine*. The number of cases reported were one hundred and eighty-three; of these, one hundred and fifty-five were expelled when the mothers were in the erect posture; twenty-two when they were sitting, and six when they were on their knees. Not one child died, nor was there any fracture of the bones, nor any severe injury sustained. Two were, for a short time, insensible, and in one an external wound, with sugillation, was noticed on the right parietal bone. Although in some the umbilical cord was broken, at the distance of four, three, two, and even one inch from the umbilicus, yet none of these suffered from hæmorrhage; and even in twenty-two cases in which it was torn off close to the umbilicus, no serious hæmorrhage followed. We might at once, from these observations, conclude that the death of an infant from such a cause is less likely to occur than might, *à priori*, be supposed; and, at all events, if such be admitted as a cause of death, it is probable that the death would not be immediate. It is, nevertheless, to be taken into account that death from such a cause is not impossible, and the accused mother ought to have the advantage of such a possibility. If the long bones be fractured, it is necessary, also, that you should be aware that such fractures may occur in utero. CHAUSSIER, in the third volume of the *Bulletin of the Faculty of Medicine of Paris*, has recorded a curious instance of this kind. Some of the fractures were recent, others were beginning to unite, others were united.

d. Another cause of the death of the child, that may accidentally occur in the process of parturition, is strangulation.

Besides the mark of the cord on the neck, the signs of this state are best discovered by dissection of the contents of the cranium and those of the thorax. The vessels of the pia mater and the jugular veins are generally found gorged with blood, and the lungs covered with ecchymosed spots.

But the question in this case may arise, whether appearances of strangulation have not really arisen from the accidental twisting of the umbilical cord round the neck of the infant? It cannot be denied that the umbilical cord is frequently twisted round the neck of the infant; and, when it is unusually short, a mark may be left round the neck closely resembling that left by forcible or criminal strangulation after birth; but the case is easily determined by a post-mortem examination of the thorax. If the death of the child have arisen from actual strangulation, then the lungs will be found in a dilated state; the pulmonary vessels turgid with blood; and the lungs, with or without the heart, will be capable of floating in water; whereas, if the mark around the neck have been produced by the umbilical cord, the lungs will be found in the state of those of a still-born child. But in giving an opinion, in such a case, we must bear in recollection, that the child may breathe when the head only is protruded from the vagina, and the cord may not be drawn tight until after this has taken place, so that with the signs of strangulation there may be those of perfect respiration, and yet no criminality attach to the mother. The presumption of violence may be great, yet it is only conjectural; and, whenever the evidence falls short of positive proof, the benefit must be given to the woman. Indeed, it should be regarded as an axiom, that in all cases in which the sensible evidence of wilful criminal violence

* See Lecieux, Médicine Légale, &c., 8vo., 1819.

is not perfectly demonstrative, no woman ought to be convicted of perpetrating infanticide. The natural instinctive feeling of maternal affection, which leads every mother to guard the life of her offspring, even when that is likely to heap disgrace upon her character, should always influence us in judging of appearances which lead to the supposition that violence may have been employed; for if the evidences be not perfectly decisive of criminal violence, we ought never to presume its existence, in the face of so powerful a principle as that of maternal affection.

e. The death of a new-born infant may also be caused by omitting to remove it from that state of supination in which it generally lies, when expelled from the vagina of the mother. It is easy to conceive a case of this description, in which a young woman, with her first child, and that an illegitimate one, may have been unexpectedly taken in labour; and, after the birth of the child, be unable to remove it, or be ignorant of the danger of permitting it to remain in the supine state until assistance be procured. The female, in such a case, may be accused of child-murder, and yet be perfectly innocent. Dr. W. Hunter, in his Treatise on the Certainty of the Signs of Murder in the case of Bastard Children, lays particular stress on instances of this kind; and illustrates the fact which he wishes to establish by the following case:—"A lady, at a pretty distant quarter of the town, was taken with labour-pains in the night-time. Her nurse, who slept in the house, and her servants, were called up, and I was sent for. Her labour proved hasty, and the child was born before my arrival. The child cried instantly, and she felt it moving strongly. Expecting every moment to see me come into her bed-chamber, and being afraid that the child might be some way injured, if an unskilful person should take upon her the office of a midwife on the occasion, she would not permit the nurse to touch the child, but kept herself in a very fatiguing posture, that the child might not be pressed upon or smothered. I found it lying on its face in a pool which was made by the discharges; and so completely dead, that all my endeavours to rouse it to life proved vain." If, in such a case, the mother be alone, every circumstance that can prove favourable to her should be inquired into by the medical witnesses; as we must imagine some strong reason for the non-operation of maternal affection, unless facts prove the contrary, before we can admit that the child has been wilfully murdered. Thus, it is possible that syncope may have taken place, or convulsions may have supervened the expulsion of the child, to prevent a mother from affording the necessary aid to her offspring. It is our duty to investigate these; and, also, to ascertain whether there may not have existed other circumstances that may have operated to cause death in such a case.

f. If the proper temperature of the body of an infant be not maintained after birth, or if the child be starved, in both cases the murder of the infant may be regarded as an act of *omission*, but, in general, it is an act of *commission;* yet I have known cases of the most flagrant description, connected with starvation.

In cases of this kind, the age of the fœtus at birth should be ascertained; for if a child should be born at the seventh month, or earlier, the utmost care may be taken to preserve it without proving successful.

It is, however, not certainly ascertained how long a child can live after birth without nourishment. Fodere supposes that it is dangerous to extend the time beyond twenty-four hours; but many instances have occured, which prove that life may be sustained after birth for two and even three days; but much must depend on the state of the child at birth, whether it be delicate and of a spare habit of body, or vigorous and plump. If, on examination of the alimentary canal, it be found completely empty; if the gall bladder be enlarged, and much bile be effused into the stomach and intestines, and at the same time the whole body be emaciated; and if the umbilical cord be also detached (a circumstance which rarely occurs until the fourth day), there can be one opinion only as to the cause of its death,—culpable omission to administer nutriment.

LECTURES
ON THE
PHYSIOLOGY OF THE NERVOUS SYSTEM,
DELIVERED IN 1836, IN THE COLLEGE OF FRANCE.

By M. MAGENDIE.

Lecture XII.

Sensibility:—*The Observance of Physiological Facts. Modifications of Sensibility. General and Special Sensibility. Faculty of Acting given by one nerve to another. The production of Movement, partial and general. Parts of the Brain governing Locomotion. Light thrown on the Functions of the Nervous System by Anatomy. Anatomical disposition of the Nerves of the Face, the Facial, and the Fifth Pair. Destruction of motion in the Eyelid, and little sensibility excited, by section of the Facial Nerve. Division of the Nerve just as it leaves the Pons Varolii. Mode of dividing the Trunk of the Fifth Pair, in animals. Proof that the Fifth Nerve preserves the function of Sensibility in the Face.*

Gentlemen:—In pursuing the study of the nervous system, it is particularly neces-

sary that we reflect deeply, and with circumspection, on the various facts which present themselves before us. Unfortunately, however, for the progress of our science, most physiologists have preferred the invention of systems to the observation of nature, and I have already called your attention to the numerous and fatal errors engendered by this mode of proceeding. You may remember with what emphasis I laid down the principle, that the best, indeed, I might say the only, method that we should pursue is that of experiment and observation. But we must convert our principles into practice, for nothing is more barren than a theory, however beautifully constructed, unless it is followed up by some practical application; nothing is more absurd than for a teacher to confine himself to saying "examine facts," without putting in practice the doctrine he professes.

Whenever we set ourselves down to observe the phenomena of nature our first care should be to examine whether we observe correctly,—whether some errors may not have glided in amongst the truths that we collect; in a word, we should exercise a severe criticism on ourselves, on all we see, and on all we describe.

A great number of valuable facts is spread before us, if we only know how to make a profitable harvest of them. Physiological facts, connected with the nervous system, present themselves every day, sometimes as a consequence of experiment, or of disease, but most frequently they are developed of their own accord.

Having laid down this proposition, the course that we should pursue is clear. There are certain facts, or phenomena, or, if you will, functions, to be examined; and we have only to see what those functions are, which of them really do exist, and which are hypothetical. Having done that we shall be much better prepared to enter on the more difficult investigation of their nature, their mechanism, their peculiarities.

One of the first and most striking phenomena of the nervous system is the phenomenon, or "function," as it is called by physiologists, of *sensibility*,—a function which develops itself under a great variety of circumstances,—which assumes a multitude of forms,—is distinguished by authors into several species, and is designated by several distinct denominations. The history of this function would ascend to the remotest times, and as every individual possesses it in a greater or less degree, the existence of this function was probably known since the beginning of the world; it is not only present in every individual, but exists on the surface of all our principal organs.

Sensibility presents itself with a variety of modifications, depending on individual peculiarities; in some persons it is obtuse, and awakened with difficulty; in others the sensibility is exalted to a most extraordinary degree; in general, however, when the individual organization is sound and normal, sensibility occupies a middle place between these two extremes. During infancy and childhood the sensibility is very active; towards puberty it commences to diminish, and after the adult age remains stationary for an uncertain period; as we approach old age sensibility undergoes an evident diminution, and at length, in extreme old age, the remnant of humanity seems insensible to all the ordinary stimuli of accustomed impressions.

We shall presently ascertain the seat of sensibility, and the portion of the nervous system with which it is more particularly connected. For the present we must be content with announcing that there is a general sensibility affecting almost all parts of the body, and a great variety of special forms of sensibility, to which we shall recur at a future period. In the senses, properly so called, we find for each a particular apparatus destined for the mechanism of the sensation; as the eye, for example, in vision; the ear, in sounds, &c. But we possess some new facts relative to the physiology of these senses. Hitherto writers have been in the habit of considering the functions of the special senses, and general sensibility, as phenomena of the same order. Thus they represent the visual apparatus as composed of a sentient surface, connected by a nerve with a portion of the brain destined to receive the impression, in the same way as the sentient surface of the finger is connected with a nerve which transmits the impressions of feeling to the nervous centres; but there is a vast difference between these two phenomena, and between the two nerves concerned in their production; for the nerve of the hand is capable of commencing an action, and developing its peculiar function, of its own accord; while in the eye the nervous system in general must give the optic nerve the faculty of acting before any sensation can take place.

These, and several other similar facts, have only lately been acquired by physiology; and you shall see, as we proceed, how the experimental method reveals many facts which we should in vain seek by any other way of investigation; in fact, without experiment, no one could ever have suspected, *à priori*, that one nerve gives the faculty of acting to another.

The nervous system possesses another phenomenon, which is little less remarkable than sensibility, that of exciting *movement* in different parts of the body. You know that our motions are distinguished into two kinds or species; the object of the first is to change the reciprocal position of the different parts of the body, and is hence called "partial;" that of the second is to change the relations of the whole body with the

substratum which supports it; this change is termed "locomotion." Now, all these movements are more or less under the dominion of the nervous system, and there is nothing more extraordinary or magnificent than the supremacy which this system exercises over the human body; at the same time nothing is more difficult than to determine its limits, or specify all the circumstances connected with it.

If we were to propose the solution of even a few of the problems which the nervous system presents in the most insignificent phenomenon of movement, I am convinced that there is no mathematician who would not find them too difficult. In the apparatus destined for the production of the human voice there is a great number of phenomena, connected with mechanism of so elevated an order, that up to the present day all our efforts have failed to apply them to the construction of instruments; however, we should state that experimental physiology has at length grappled with these difficulties, and has made more progress than could be expected, not only in the explanation of many of these phenomena, but also in their practical application. There are still many that we do not understand; but when once a science is in march few can pretend to designate where it will stop.

Physiologists formerly attributed our spontaneous movements to what they called "volition," a term merely expressing the fact without throwing any light whatever on the nature of voluntary movement, or on the portion of the nervous centres with which such or such movements are connected. Modern physiologists have advanced a step further. You shall presently see, by experiments we propose performing on the living animal, in what way we are enabled to explain and reveal, as it were, a portion of the mystery of forward movements, of motion backwards, of rotation; you shall see under what influence these different locomotory changes take place after we have demonstrated the facts which prove that the nervous system presides over movement in general.

There is a species of phrenology which is positive and real; it relates to the movements of the body. We can make an animal move to the right or left; we can even make him retrograde, or rotate on a centre, like a horse guided by the master's hand; and all this by mechanical action on such or such parts of the brain. We shall examine this question at a later period; however, it will always remain true, that in phrenology, as in physiology, our observations should tend as much as possible to what is positive, though the method of direct experiment is inapplicable to the former. Physiology, on the contrary, is a science of experiments; and you shall see how the experimental method explains the two great phenomena of sensibility and movement. Having once acquired the conviction that such a part of the nervous system presides over motion, such another portion regulates the sensibility of organs, or parts of the body, you will be able to apply your pathological researches to the explanation of diseases, with much greater advantage than formerly. Anatomy is one of the means which throws least light on the functions of the nervous system. It may surprize you to hear this, but it is nevertheless true. The most minute and practical anatomist will fail in his endeavours of explaining many of the most important phenomena of the nervous system; thus, for example, when performing experiments on animals, we sometimes observe that a lesion of a certain portion of the brain in a rabbit determines a lesion of motility, by which the globe of one eye is directed upwards in the orbit, while the other eye looks directly downwards. Now, the mere anatomist, whose only means of investigation is his scalpel, is quite unable to tell us what portion of the nervous centres has been injured, or what relation exists between the point wounded and the functional disturbance of the organ of vision. Anatomy might do something in showing more correctly than has been done the mode of connection between the nerves and muscles; but, as things now stand, we must confess that our knowledge of the functions of the nervous system is built on pathology and experimental physiology infinitely more than it is on anatomy. In making this declaration, I am far from wishing to convey the idea that you should neglect your anatomical studies, or give yourselves up to anatomy with less care or minute attention than you do now; for although our researches in the anatomy of the nervous system may as yet be attended with little benefit, the time may, perhaps, be not far off when a great deal of what is now unknown will be explained by a persevering and minute inquiry into the structure of our different organs. From my childhood I have been given to the cultivation of anatomy, and it is for this reason that I presume to say its utility is circumscribed.

In the present lecture I shall not go beyond the two phenomena of *movement* and *sensibility*, although I was nearly drawn away from my accustomed manner of proceeding, to examine certain theories connected with this part of our subject; the time, however, is too short and precious. Let us return to something more useful than a refutation of chimeras.

The first problem which we propose examining by the experimental method, is the following:—"Investigate the phenomenon of sensibility in the nervous system." For this purpose we shall select the nerves of the face; and first let us say a few words

touching the anatomical disposition of the nervous system in this part.

It is unnecessary for me to mention, at any length, that the human face is endowed with a very high degree of sensibility; it is moreover the seat of several of the special senses; but let us examine, under the influence of what nervous branches this exquisite sensibility is acquired.

The integuments of the face are chiefly supplied by two cerebral nerves; one is the facial nerve, properly so called (the portio dura of the 7th pair); the other is the fifth nerve, or, more correctly speaking, certain branches of the fifth.

The facial nerve, or portio dura of the 7th pair, arises near the bottom of the fourth ventricle, appears externally between the restiform and olivary bodies, and, having traversed the temporal bone, emerges through the stylo-mastoid foramen, to distribute itself to the integuments of the face and head, and several of their muscles.

The fifth, or trigeminal nerve, is more complicated. It arises by numerous filaments from the neighbourhood of the fourth ventricle, the olivary and restiform bodies; it then advances forwards, and having formed a very remarkable ganglion (the *casserian*) near the cavernous sinus, (where the nervous substance, as I before told you, is bathed in the cerebro-spinal fluid,) from thence three large branches are given off to the orbit and its various parts, the integuments of the forehead, the jaws, and integuments covering the interior portion, and, finally, the teeth, and part of the tongue.

I can only mention, in the most general way, the anatomy of parts which may become the subject of our study. However, as this part of the question is most peculiarly interesting, I shall show you at our next meeting a preparation in which the nerves of the fifth pair, and the facial nerve, have been carefully prepared; you will see that one is much more voluminous than the other; that the fifth nerve is much more complex in its structure, arrangement, and distribution, than the seventh nerve; it arises more deeply in the nervous centres, and, above all, is distinguished from it by the existence of the ganglion so often alluded to.

The branches of the fifth nerve are extremely numerous; hence, from the very brief enumeration we have already given, you may judge of the very great variety of parts which it supplies; indeed, this nerve alone has formed the subject of several distinct treatises, in folio, quarto, &c. Sœmmering and Meckel were the first who followed with great care all the smaller filaments of the trifacial nerve, yet neither anatomist drew any useful conclusions from his researches. An experiment made by Sir Charles Bell demonstrated that the motion of closing the eyelids is destroyed by the section of the facial nerve. I have frequently repeated this experiment, and found it perfectly exact. As soon as you divide the trunk of the facial nerve in an animal, the latter loses the power of closing its eyelids, the eye-ball remains constantly exposed to the action of the air, the animal no longer winks, either spontaneously or when a foreign body is brought into contact with the conjunctiva. Thus you see experimental physiology demonstrating a fact which could never have been discovered by the mere anatomist, and establishing a line of demarcation between nerves with respect to their sensibility. We shall examine this fact on the living animal before you, and show you the difference existing between the sensibility of the facial nerve, and that of the fifth, in the most striking manner.

[Here the Professor took a young rabbit, and made an incision into the skin, over the course of the facial nerve, observing that it was very easy to be found in these animals, as the divided parts furnished so little blood.]

Here (said the Professor) is the trunk of the seventh pair; you see how easy it was to lay it bare. Before I proceed to cut it, let me draw your attention to the fact, that the integuments of the animal's face are highly sensible, and particularly in the parts to which the branches of the seventh pair are distributed. Now, by pinching or cutting the nerve we can determine directly whether it is really endowed with sensibility or not. You see how I pinch and irritate the nerve without developing any very great signs of suffering; in fact, its sensibility seems almost null. Here, then, we have a nerve taking its origin in the brain, and distributed to the face; yet is evidently not the agent of sensibility. Pay attention to this fact, Gentlemen, it is one of the first I have had the honour of showing you, and may well contrast with the conjectures of our more brilliant, but unsolid physiologists.

We said that the face was principally supplied by two nerves; we have shown that one of these nerves is little, if at all, sensible; hence a natural conclusion, that the other, or nerve of the fifth pair, is the one destined to supply the parts with sensibility. This reasoning, however just and logical it may appear, is not sufficient; we have more conclusive evidence, and must produce it; experiment must determine the question for this nerve, as it did for the facial one. Sir C. Bell performed this experiment, and divided the branches of the fifth nerve, as they pass out from the supra-orbital and sub-orbital foramina, and from the submentar hole. We thought it right to modify this experiment, and instead of operating the section of the nervous branches not far from their termination in the integuments of the face, we endeavoured to make an experiment more perfect, and less subject to the influence of any disturbing causes, by di-

viding the trunk of the nerve within the cavity of the skull, just as it leaves the pons varolii. By operating in this manner we shall obtain general results more exact and free from error than Sir C. BELL could have obtained by the division of a single branch.

It is not a matter of very great difficulty to divide the trunk of the fifth pair of nerves in a living animal. If you are well acquainted with its traject in the particular species of animal on which you propose operating, you can introduce a triangular-shaped, cutting instrument into the middle temporal fossa, just over the trunk, which you cut across by simply depressing the instrument near the place where the nerve separates itself from the brain. I should, however, direct your attention to the fact, that the fifth nerve runs close upon some of the venous sinuses, and if you introduce the instrument in such a way as to wound one of those venous recevoirs, or, perhaps, the trunk of the internal carotid artery, your experiment must naturally fail. Hence you see, that though our method of practising the experiment has the advantage of being followed by more certain and general results, it is much more difficult than that of Sir C. BELL. You know whether you have divided the nerve or not, by the movement, in totality, of the animal's body the moment you cut the nerve.

[Here M. MAGENDIE introduced a sharp-pointed, cutting instrument into the cranium of a rabbit, and probably divided the nerve at the first attempt, for the animal gave signs of acute suffering, by a general muscular effort, when the handle of the instrument was elevated.]

If, (resumed the Professor), the animal retain any sensibility on the side of the face corresponding with the nerve now divided, you may conclude, to a certainty, that the section has been incomplete. However, let us see. [The trial was here made.] The experiment, Gentlemen, has been perfectly successful. I touch and pinch, as you may observe, various parts of the animal's face, the nose, the lips, the surface of the eyeball, &c., and the animal does not evince the slightest trace of sensibility. Hence the physiological conclusion to be drawn from the section of the fifth nerve, which I have performed before you, is, that this nerve presides over the function of sensibility in the face. When this has been demonstrated in so direct a manner, we have no necessity to recur to induction. However, I may mention, that experiments made with galvanism on the nervous system tend also to show, that the insensibility of the parts of the face in man depends on a lesion of the fifth pair of nerves; hence, during hospital, or private, practice, whenever you observe any particular portion of the face, the conjunctiva, for example, to be insensible, you will know to what particular nervous branch your remedies should be directed. Should the seventh nerve be the one injured, the face still preserves its sensibility.

I shall conclude by again impressing on your minds that the facial nerve is not the regulator of sensibility in the face, but that that function is supplied, *par excellence*, by the fifth. In our next lecture we shall examine the sensibility of touch, or "sensibility," properly so called.

CASE OF PERICARDITIS,

FATAL;

WITH REMARKS ON THE

EFFECTS OF BLOODLETTING.

By JOHN FOSBROKE, M.D., *Physician to the Ross Dispensary.*

In my last paper (LANCET, No. 664, page 276) I stated how a third attack of pericarditis, and how another case of progressive hypertrophy and dilitation, of six years' standing, had been subdued by sedatives and depressants, without bloodletting. The first case, Mr. Gwynne, after an attack of determination to the head, caused by accumulation of blood in the cavities of the heart, which he removed by applying, at his own suggestion, 60 leeches behind the ears, has recovered perfect health. The girl, Ann Howls, now Mrs. Blewitt, after serving five or six years' apprenticeship to disease of the heart and bloodletting, has also recovered complete health, except that she is subjecct to hysterical attacks from slight and sudden mental impressions. I observed, when I left off, that she was threatened with moderate relapse, from getting wet feet. It took place, and held on, from February till May, and was rendered worse by the state of circulation, produced by the spring season. It was a continuation of the old symptoms in a subdued form, viz., palpitation, with impulse of left ventricle, quick, but not strong, as before, little of right ventricle, but more or less beating against the two last bones, or whole length of the sternum; some *bruit*, and pulsation under both clavicles; pain under the left chest, striking through to the left shoulder and left scapula, and shaking the shoulder for ten minutes afterwards; pain along the left arm; syncope two or three times a day, at the coming on of palpitation; slight pain increasing to dreadful pain of brain, from morbid determination, throbbing carotids, confusion of mind; deterioration of memory and attention, as in Mr. Gwynne; no palpitation at night, but heavy sleep, as if she could sleep all her time away; in Gwynne, there was morbid sleep, arising apparently from over excitement of the brain and nervous system; cough and expectoration; men-

struation irregular, coming on for a day or two and then stopping, and coming again; tendency to get fuller and fatter, notwithstanding, which I attributed chiefly to vernal plethora, and activity of circulation, and nervous power.

Leeches to the nose and behind the ears, and the stronger combination of hydriod. potass, digitalis, and tartar emetic, used in Mr. Gwynne's case, and an issue in the left arm, a seat of pain, relieved the heart symptoms. Pain at the back of the head, (which always coincided with retarded and deficient catamenia, and which, if not checked, was always followed by violent hysteria and increased nervous palpitation, and (in this instance by vertigo and fits,) and tenderness of the dorso-lumbar vertebræ, for which she had slept on a mattress at the Gloucester Infirmary, were relieved by camphor and assafœtida, one cupping on the loins, and the derivative effects of half drop-doses of croton oil, with ext. of poppies, twice a day. But the nitrate of silver, used in inflammation of the heart by Dr. S. Dickson, combined with aconite, musk, and camphor, completed the cure, and at the end of the summer she married a young tradesman, and removed to Bath.

If these two cases have shown the efficacy of a final treatment, with little or no bloodletting, in any positive degree, the following case furnishes some negative evidence against depletion by showing its inefficacy.

CASE.

On the 27th of June, 1822, Mr. Hans, jun., brought the following case to Dr. Jenner, with whom I was then living at Berkeley. Notes of it were taken chiefly by myself, but in part by the doctor.

Wm. Weeks, æt. 24, a tall, muscular man, gardner to Mr. Sydney, of the Crown Inn, Newport, complains of violent pains in the region of the heart; violent pulsation and irregular action of the heart, over a very diffused space of the thorax, and lower down than usual, as if its apex was elongated to about the eighth rib; in uphill walking he is forced to rest, by sharp pains which catch him in the region of the heart; he exhibits an unsteady undulatory motion of the head, as he sits up in a chair, occasioned, as he thinks, by the heart shaking his whole body; he is also affected with fluttering of the chest, which intermits, and some pain of head; severe pain in the hip and knee-joints, with some swelling of the latter; pain in the left shoulder, and some general shifting pains; contenance full of anxiety and pale, pulse very quick and irregular, appetite natural, tongue white; feverish, skin dry, urine very red and thick; other secretions natural.

He stated, that his seizure came on about one month before, after over-heating himself in his employment, and then exposing himself to chill. The symptoms followed thus:—cold shiverings succeeded by hot fits, local pains first felt in the loins, apparently in the articulations of the lumbar vertebræ, next in the region of the heart and between the scapulæ, as if transferred from the spinal articulations to that region; and, last of all pains in the hip and knee-joints, after which the heart symptoms became less severe.

Mr. Hans, jun., bled him to a pint, gave him purgative and other medicines, and excited tartar emetic pustules on his knees.

In the six following days we bled him, a second time, to twenty ounces, and a third time to a pint; and, up to this time, the affection of the heart was much moderated, and the local pains relieved. But on the seventh day, (July 3,) he had a formidable relapse, indicated by a rapid but intermittent pulse, above 100; a more violent action of the heart itself, succeeded by weakness and languor of that organ; bounding and visible pulsation of the carotids, and even digital arteries; excessive distention of the superficial veins, and an accession of very acute rheumatic inflammation of the wrists. We bled him to three pints. The blood, drawn in separate cups, presented, when coagulated, a deep concave surface; the last drawn was covered with a brown-yellow crust one-fourth of an inch thick. The crassamentum was very firm; the pulse fell to 80, but still intermitted. I ordered him 8 gr. of antimonial powder with 2 gr. of calomel, and the same of squill, in pills, and one drachm doses of wine of colchicum every four hours. From this time to the next morning, then the eighth day, (July 4,) he felt better, his general sensations were pleasanter; the dry cough and difficult breathing were easier, the pain of joints less, the skin soft and moist, bowels free, pulse 90, but full, hard and irregular, though on the evening before, after the last bleeding, it was more soft and compressible. Forming our judgment by this state of the pulse, and wishing to render permanent the advantage apparently obtained from the last bleeding, we took twenty ounces more blood. During the venesection the pulse became regular, the heart seemed to hesitate and collect its force to give an efficient stroke, and the artery at the wrist felt as if a narrower stream ran along its channel. After it was over, he said he felt no effect from it, or as if he "wanted more blood taken." The pulse now varied from seventy to seventy-five. The same medicines were continued. In the evening he had some pain between the shoulders, and some faintness and weakness from loss of blood, but the pulse had again risen to 87. On the ninth day, (July 5,) the heart palpitated with violence, but the pulse continued at 87, and he was free from all pain except headach. As the progress of the inflammation did not appear to be interrupted to a sufficient extent by the previous bleedings, we took

thirty ounces more blood. The pulse fell ten beats, and he felt sicker and fainter than after all the preceding bleedings. He was ordered to leave off the pills, because his mouth was sore, and continue the colchicum. On the tenth day (July 6), the pulsation of the heart was more diffused over the chest, the pulse 87, quick and hard; no pain; thought he could bear the loss of more blood, but not choosing to make that venture, we ordered ten drops of tincture of digitalis, with one drachm and a half of wine of colchicum, every four hours. He was removed that evening to Berkeley. On the morning of the eleventh day (July 7,) the pulsation of the heart was more dilated and vehement than at any period of the disease; the pulse was above 100, and full, but regular; extreme turgescence and quivering of the jugular veins were visible, even at some distance; the trunk was jarred at every stroke of the heart; but he complained of nothing except the organ diseased. As there had been purging and some pain of bowels, mit. of potass was substituted for colchicum, and combined with the digitalis, and we decided on inserting a seton in his chest; but nothing more was destined to be done, for in the evening he got up, and whilst he was putting on his clothes turned livid, fell back in the chair, and expired. Circumstances interfered to prevent a post-mortem examination.

Remarks.—The remarks which follow were written under the case in 1822.

"In judging of this case and its results, some additional circumstances require to be taken into consideration. It was found, upon inquiry, that he had been ill six weeks instead of a month, as he had represented; that, except for the first four days, he had been affected all along with inflammatory symptoms about the heart; and for the first three weeks he had sought no advice. When he was first seen, the system evidently partook of the local excitement, and the arterial system might then be said to be generally disordered. I am inclined to attribute his relapse to exposure to a current of air, produced by an open door and window, and a hole in the wall communicating with the external atmosphere, and parallel to the door and window, besides a passage through the floor to the bottom of the house. I adopted the supposition that the draught caused the relapse, because, on the day after it ensued, I saw him sitting in the full current, and cautioned him. He was bled to 150 ounces, or about nine pints, in eight days; he took calomel and antimony *till his gums were sore;* and he was blistered extensively, and purged. But, though thus acted on by the most powerful antiphlogistics, the advantages were merely transient: the morbid irritability of the heart was never materially lessened, except so long as the nausea caused by the bleeding lasted. The consequences of the treatment seemed to be these: the functions of each elementary system, except that of the great organ affected, were finally restored to a state of general healthy action, but independently of the regular condition of other functions, the heart continued to be affected with a local inflammation, confined to itself, and to pulsate, as several remarked, with immoderate violence, to the very last beat. What circumstances produced this uncontrollable intensity of action, with which it seemed to flutter itself out, and whether connected with any *morbid condition of the nerves*, forms a subject worthy of farther inquiry."

I wrote these remarks in 1822, whilst I was little more than a student, just fresh from London and Edinburgh. We shall see how they will bear the test of more mature years and experience. The knowledge taught by the collecting of facts, the comparison of facts together, and the drawing of sound conclusions from those facts, is that knowledge which the practical man wants, who has to conduct dangerous and responsible cases, and is anxious for the reputation of that success, without which no blockhead, let him be bolstered and buttressed up as he may, by the influence of property, local interests, and the puffing and lying of his gulls and bribelings, can in the end stand.

I return to the question which I agitated in my last paper on Mr. Gwynne's case,—"*How far is the evacuating system to be relied upon in inflammation of the heart?*"

We do not find many such cases to furnish materials for comparison, for, in general, physicians are as silent about the dead as the graves in which their patients are buried. M. Andral bleeds in his first case four times in three days, and five times in all, to twelve ounces each time, and applies sixty leeches; in short, he takes five pints of blood with the lancet, and God knows how much by the five dozen leeches, in six days, to abate an acute articular rheumatism. On the sixth day the patient is seized with an intensely acute inflammation of the pericardium, and after the application of thirty of the sixty leeches, dies in twenty-nine hours. "Again," says this great master of his profession, "we remark how *fruitless* were these *numerous sanguine emissions*, either to produce cessation of the articular rheumatism, or to *prevent the invasion* of inflammation of the pericardium. Here, moreover, the sympathetic irritation of the central organ of the circulation was the cause of all the symptoms and the death." In the second case, also, rheumatic pericarditis, he uses bleedings by pallettes, (one large), and sixty-seven leeches, in six successive days. *After* the third bleeding all the symptoms are *exasperated* (!) The next

day, after the fourth bleeding, they are all greatly *ameliorated*(!!) just as in Weeks's case, after his third bleeding; but on the day following, again, as in that case, a *relapse*(!!!) takes place. The fifth venesection and a dozen leeches are determined on, because every preceding depletion had produced "a very sensible amelioration." Even so were we led on! Next day fifteen leeches more, and M. Andral's patient, respiring freely, talking and sitting with ease, and a calm unaltered countenance, dies as suddenly as Corporal Trim dropped his hat, to show how "we are here to-day and gone to-morrow." Weeks went off, the heart stopping in the course of the most violent palpitation,—

"—— Just as the barr'd up bird will beat
His breast and beak against the wiry dome"

till it drops down dead. From the increased turgescence of the jugulars, dry cough, and livid look, signs of impeded circulation in the heart and lungs, it is not improbable that Weeks was partly asphyxiated. In M. Andral's case of asphyxia the violence of the heart's action and the manner of death were the same. The third case, which was idiopathic, not rheumatismal pericarditis, was treated with two bleedings to twenty-eight ounces, and the application of thirty leeches; false amelioration, relapse, and death by asphyxia, followed the second abstraction of blood. In the fourth case, also, idiopathic pericarditis, the patient was bled on three days following, (twice to twelve ounces), and one hundred leeches were also applied. He was better on the second day, and the second leeching and bleeding were used to prevent relapse. He recovered. Here I must take occasion to mention, that twelve years ago, in the case of Weeks, I foresaw and acted upon the important principle of bleeding after seeming amelioration, to prevent relapse, transition into chronic pericarditis, adhesion of pericardium, and organic disease, which has since been laid down so strongly as a rule by MM. Lerminier and Andral. I have taken blame to myself for not having acted on the same principle in the acute attack of Ann Howls. M. Andral's fifth patient, having pericarditis and phthisis, of course dies. His sixth patient, after three bloodlettings and thirty leeches, dies asphyxiated. The seventh and eighth cases are less *apropos;* they follow the same fatal course. A great man thus loses seven cases out of eight or nine; I lose two out of three, but he had the French constitution to manage, I the English, which makes all the difference. Dr. Parry, of Bath, whose practice M. Andral takes very much after, had four cases of inflamed heart. One was bled to four pints at four different times, and cured, the third and fourth bleeding being called for by a relapse; the second case, of rheumatic origin, was bled to forty ounces on four occasions; the third, and only non-rheumatic case, to eighteen ounces at twice. These three patients recovered, but the fourth, a rheumatic lady, died of general dropsy, notwithstanding some temporary benefit from small bleedings, refrigerants, and sedatives. In one case a relapse took place after a third bleeding, as in the case of Weeks. I met the recurrence in him by a forty-eight-ounce bloodletting, which one would have thought enough to have arrested any inflammation, but neither that abstraction nor another, to preserve the flattering, deceptive, and false amelioration, which so often occurs in these cases, enabled me to save him. Here, I shall observe, that relapses and recurrences are so usual in these cases, that I do not now assign any importance to the draught of air to which Weeks was exposed, and to which, at the time, I surmised his relapse might be attributable. In Dr. Parry's second case venesection produced little or no sensible impression,—indeed, no syncope even on the third or fourth occasion. Not one of my three patients were of the "faintified" order; it was as though they would not faint, whether tapped by the pint, quart, or something over. It has been employed without producing the smallest disposition to syncope, and when it has caused syncope, consequences have ensued which have led to a condemnation of the practice. (*Professor Home.*) Two cases are reported by Dr. Hope: both terminated in adhesion of the pericardium, with the addition, in one, of hypertrophy and dilatation, which proved fatal. The fate of the other is not told. Dr. Selwyn, of Ledbury, who has had the advantage of treating two thousand dispensary cases annually for many years, tells me he has rarely seen a case of rheumatic pericarditis which has not ultimately passed into adhesion and organic disease. Professors Home and Alison make the same remark. Dr. Latham is stated to have compared one hundred cases of pericarditis. How did those cases terminate? Numerical statements of results are, above all things, wanted. Why are they kept back? According to M. Louis's authority, one case in six proved fatal in six hundred and seventy subjects. I very much doubt whether six hundred and seventy well-authenticated cases could be collected by any one individual, and I am quite as much disposed to question whether the mortality was not something more like six to one than one in six, if the cases were at all genuine. His system of treatment is moderate, and what would be called too feeble to save life in this country.

CASE.

A case was admitted into the *Royal Infirmary, Edinburgh*, Feb. 2, 1822, under Professor Alison, of which I took full notes. In it is embodied much comparative reason-

ing upon the points now discussed. Ann Pollock had rheumatism and swelling of right wrist, and pain of back, thigh, and left shoulder; the pulse 112, and heat 102, with vehement febrile and inflammatory symptoms. Bloodletting, general and local, was adopted, as the indispensable preliminary to purging and sudorifics, for Dr. Alison held in opinion with M. Broussais and Dr. Armstrong, that the evacuating system was most judicious at the commencement of inflammatory rheumatism. "It had been found that no case went on so well where it had not been used." But he admitted that it was a weakening and injurious practice in the last stages, and that tonics were then more judicious. The danger of metastasis to the heart was discussed, though not, at that time, expected. She had been bled, &c., before she came in, and about the 4th of February she was bled again, to syncope. The pulse rose to 124; the heat to 108. She was blooded a third time, and on the sixth day the change was as favourable as could be expected; the pulse had sunk to 101, the thirst was diminished, and the pains were all relieved. She had now lost 40 ounces of blood. Sudorifics were then given, but uselessly. On the eighth day of the disease, pain of breast and pain at full inspiration came on. The diaphragm had become affected with rheumatism, and respiration from that time was performed, by the intercostal muscles. The pulse got up to 116, the heat to 100, and bleeding was again ordered, but not performed, from the symptoms being more moderate. On the tenth day the pulse was 90, and full, and the pain of breast greater; but there was no pulsation in the region of the heart, and that organ was not yet affected. Dr. A. regretted afterwards that blood was not taken exactly at this time. Ten ounces were afterwards abstracted. Up to the 12th, the symptoms had not increased; the heat was not high, the breathing ordinary, the pulse 90. Leeches and laxatives were used. The heart now became affected by extension from the diaphragm. On the 19th day the eye became wild, the pulse above 100, with symptoms of aversion to motion, a peculiar sign of disease of the heart, arising from undefinable morbid sensation, and the breathing very quick and confined, but not full. Delirium now began, and never left her. It was not violent, but steady. She had spasms of the eyebrows, which may occur in acute rheumatism. Dr. Alison considered the delirium not a metastasis, as it is regarded by authors, but a symptom of disease of the heart, because he, as well as Mr. Abernethy, had discovered no consecutive morbid changes of the brain in such cases. This opinion, I may remark, has since been borne out by the cases of M. Andral, and other French pathologists. "Individual susceptibilities," says the Parisian Professor, "give rise to apparent meningitis, and the most varied nervous symptoms, and produce the morbid states, the seats of which they place in the nervous centres." Remarkable strength of pulse and heat of skin were also viewed as sufficient to excite a strong suspicion of the existence of acute pericarditis. She was bled and blistered, and syncope came on, for which remedies were given. She now seemed to recover suddenly, her breathing became free, and the pain left her; but she had no recollection of what had passed. Calomel and opium were prescribed, to check diarrhœa. On the 17th day there was an increase of dyspnœa and determination, which decided the Professor in favour of another bleeding. It was now probable the mischief was done, and that no chance remained but of the heart becoming adherent to the pericardium. Bleeding was followed by an abatement of pulse in the left arm. The pulse in these cases is no criterion; it is often stronger after acute symptoms have subsided. On the 22nd day confusion of mind increased, and inspiration became more painful. On the 23rd she grew rapidly worse; the pulse became quicker, her extremities grew cold, and she died, but free from coma, except for a few minutes before her death.

On examination, twelve ounces of milky fluid were found in the pericardium; the heart had a crust of coagulable lymph; the pericardinm adhered to the breast (?), and there was slight inflammation of the diaphragm.

There could not have been much less than 100 ounces of blood taken in the 23 days. We took about 150 ounces from Weeks in six consecutive bleedings, or about 9¼ pints, in 8 days; but there is a wide difference between a Brobdignagian of the smock-frock-and-knee-breeches class, and either a Frenchman, a Bath visitor, or a woman. Ann Howls lost at least 100 ounces in her first attack, and Mr. Gwynne 70 ounces in a few days. The first bleeding, especially, should be large (*Dr. Hope*), and a day or two should be allowed for the effect. The practitioner should not be hurried into repetitions by the quickness and fulness of the pulse. Mr. Rootes, of Ross, informs me, that he has observed this rule in inflammatory affections of the heart, with good effect. In a case of chronic pericarditis, under M. Andral, the pulse rose to 140. He remarks, that beating of the heart may occur in old people from ossific deposits, and that the force of an organ does not constitute the general force of an individual, which is not to be determined either by the force of the heart or of the pulse. Dr. Hope chooses guidance in bleeding, according as the "pulse and action of the heart denote a recommencement of reaction;" but he conceives that all measures should be "apportioned to the vigour of the patient's constitution." Dr. Alison con-

siders that dyspnœa should decide the practitioner in favour of continual bleeding, as the pulse in rheumatic pericarditis is no criterion, being often stronger after acute symptoms have subsided.

1. *In summing up upon the merits of the evacuating system, the preliminary question is, "How far does that system tend to produce metastasis?"*

Dr. Alison, in his case of Ann Pollock, was at first disposed to think, so far as he was warranted in drawing a conclusion from a single case, that metastasis more surely came on after the use of evacuations than by any other plan. Dr. George Fordyce observed that such was the case, and, consequently, used bark, with only three losses, by his own account, in rheumatism. But on inquiry Dr. A. was induced to think, *that* the evacuating system had no tendency to produce metastasis to the heart; *that* rapid cures followed it; *that* it is the best course to pursue in acute rheumatism before the organs became habituated to the morbid action. Dr. Cullen makes no mention of metastasis; Dr. Gregory never lost but two cases by the evacuating system; Dr. Witts relates cases of metastasis, following neglect of bleeding. Upon an extended view of practice, fatal metastasis surely follows the evacuating system. In Weeks's case the metastasis came on in three or four days after the articular affection, and before he was bled. Dr. Jenner, who discovered that the red water of cows was connected with inflammation of the heart, and that sudden death was liable to follow violent efforts of exertion and locomotion in the cardiac affections of these and other animals, held an opinion that the heart was affected primarily, and that the pain and tumefaction of joints were secondary symptoms, constituting salutary processes. This notion was very consonant with his favourite doctrine of the exchange of morbid actions, and of skin diseases, from "a pimple to the gout, forming guards to the constitution." A similar opinion has lately been broached by some one, I believe M. Bouillaud. The case of M. Andral, and others, by no means bear it out. Acute rheumatism is, generally, of frequent occurrence before the heart is affected. This was the case in Pollock. The organ is usually attacked while the febrile symptoms are strong, and the attack is generally preceded by some local pains; the rheumatism is generally active in the external parts, at the same time. Metastasis occurred in another case under Dr. Alison, after the third attack before puberty. It commonly happens on the fourth, fifth, and sixth days of the disease, but the period admits of much variety.—*(Notes of Clinical Lecture by J. F.)*

2. *The second question is, "How far is bleeding to be relied upon for inflammation of the heart after metastasis?"*

As Baron Corvisart considered the disease to be invariably fatal, the very partial success which has attained the evacuating system has been held to be proof of its superiority. Dr. Alison stated, as I understood him, that one case only out of 116 is said to have *completely* recovered, the disease proceeding in a chronic form, or leaving some affection of the heart. The few successful cases were met by decided bloodletting. In one case a young man lost 80 ounces in 24 hours. The only case of *perfect* recovery known to this highly skilled physician and excellent man, was treated with venesection and digitalis. Of all the cases I have before referred to, how few are the instances of success upon the most active evacuating principles! Had I compared facts to a greater extent, I do not imagine the result would have been varied for the better. Dr. Hope candidly states that the antiphlogistic treatment cannot be relied on; rarely, if ever, does it, in a severe case, effect a complete cure. The disease proceeds, with an uncontrolled tenor, to its fatal termination; in such cases as effusion of lymph and adhesion, necessarily mercury is the "sheet-anchor of the practitioner."

Finally: I do not deny, *that* bleeding is the best practice; but it certainly appears to me, *that* a man may be bled all but to death to save his life, and die notwithstanding; *that* bleeding may be the best means to prevent metastasis, but *that* it may ensue after a patient has been bled and leeched five or six times, as in M. Andral's first case, and the case of Ann Pollock; *that* getting worse, that is, "exasperation" of symptoms, after bleeding, is no uncommon thing; and *that* getting better is a very bad sign, for nothing is so frequent as relapse and death after it; *that* it does not very plainly appear that the bleeding cures all those who get well; and *that* where it has appeared to cure them, enough is left behind sooner or later to cause death. To use M. Andral's exclamation, How fruitless are these sanguine emissions to prevent the one thing or cure the other! How, for all the world, like the cholera doctor's specifics and cures!

3. *The third question is, "Objecting to the evacuating system, what better practice can be substituted?"*

It may be hang-choice; but if an opportunity befall me, I shall adopt the alternative. I have shown in the case of Ann Howls, how I threw off a systematic course of four years' bleeding in organic disease of the heart, to which there seemed to be no end, and at last cured her without it. I have shown in Mr. Gwynne's case, that he re-

covered from two attacks after bleeding; but he got over a third recurrence quite as well without it. Rheumatism of the heart may be a different mode of action from idiopathic inflammation; it may be more tenacious and intense, and afford less chance of success, but still would I make the experiment. In Weeks' case, I tried calomel and opium. Holding, as I do, that we should look at the influence, as well of the nervous as of the circulating system, in the treatment of both organic and functional diseases of the heart, I do not think it consistent with that view of the pathology of the organ to trust to the evacuating system alone. In Weeks the motion of the heart was weakened by reducing the quantity of its natural stimulus, and that was all; and I believe it will seldom avail to act exclusively on the circulation, and overlook the violently disordered nervous or neuralgic action, combined with the inflammatory symptoms. In asking the question thirteen years ago in that case, whether the uncontrollable violence of the heart's action was not connected with some morbid condition of the nervous system, did I not catch a glimpse of M. Andral's more recent opinion of a combined neuralgic action? "The severity of symptoms," he observes, "depends on the sympathetic disturbance of the heart and other organs, and they vary infinitely in their nature and intensity, according to the individual sensibility or the activity of the sympathetics of the organs."

In Weeks' case I tried calomel and opium, which some greatly prize in cardial inflammations: it failed; indeed I never found it effect much good. I tried antimony, combined with both, which I have heard the general practitioner to whom I was apprenticed, say, no rheumatism, in his ample experience, had withstood in the end: it failed. I tried colchicum, as all know, a powerful anti-rheumatic, and as Mr. Haden, sen. (whose book I reviewed in Dr. Johnson's journal, about that time) thought equivalent to the lancet, and perhaps is so in one case in many: it failed.

The result of this case, and of another case of fatal chronic pericarditis, which I saw near Berkeley the year before, created so much doubt of the efficacy of the lancet in chronic rheumatism of the heart more particularly, that I *then* resolved to meet that form of the disease without depletion, if it could be possibly avoided. I was told, in the course of some discussion on the subject, that the horse-doctors give *their* patients steel in such cases, the remedy with which Alexander restored Bucephalus. It could not turn out worse than bleeding in chronic cases. Dr. Geo. Fordyce professes to have lost two or three cases only out of several hundred rheumatics treated with bark; but, as Dr. Alison observes, he is frequently obscure, and Dr. Parry says, "the doses were so small as surely not to have had much power over the malady," in most of the cases doing "nothing more than precluding the employment of the usual injurious practices," and, in the worse kind, "preventing the early administration of more efficacious remedies." There being no better substitute than bark for bleeding, the latter has been preferred, but the hydriodate of potass and hydrocyanic acid, since brought into note, and digitalis and tartar emetic, offer resources, in large doses, worthy of being run against bleeding. If they succeed as well in other cases as in the two which I have reported, they may go half the hog, if not the whole hog, to supersede it.

I can clearly foresee that the general application of bloodletting is destined to undergo a great change, and to be brought within more rational limits. M. Louis, an authority of weight, has assailed it with much force of fact in pneumonia, for which Professor Gregory went so far as to abstract three hundred ounces of blood, a loss, says Professor Alison, that only one case in ten thousand can bear! "Bleeding," says Mr. Liston, "is too often resorted to by thoughtless or ill-educated practitioners, to the detriment of the patient. It is had recourse to by those who have *no correct ideas of the actions of the animal economy*, who have *not within their heads a peg to hang an idea upon*; or if they have, they are *too lazy to think* and combine their ideas, so as to come to a proper conclusion regarding what is the judicious course to be pursued in any case. They *follow a routine*, and bleeding is too generally the commencement of it." Like Asclepiades, I venture merely to criticise the practice. Dr. Dickson, of Cheltenham, is the modern Chrysoppus who has banished bloodletting from his therapeutics. He communicated this startling fact to me a year and a half ago. If the extent of individual practice, and the repute of independent investigation and successful treatment, be any proof of the value of a man's doctrines, he has had four thousand and five applications in a year to test his opinions; applications certainly not gained by the meretricious means and artificial aids of the mere local-interest-and-connexion men. Let not petulant ignorance assume that bloodletting has been an immutable and unassailable practice. The Egyptian and Pythagorean schools rejected it, "because the life is in the blood;" the latter, after Hippocrates had revived it. It has alternately fallen and prevailed through thirty-six centuries, and its more or less use will be subject to the discovery of agents adequate to supersede it.

Ross, Jan. 1837.

MR. LISTON'S OPERATIONS
FOR THE REMOVAL OF
TUMOURS OF THE JAW.

To the Editor of THE LANCET.

SIR:—I am well aware that in the conducting of a periodical, but few of the articles proceed from the pen of the Editor, and that some of them may not even meet his eye until printed. Of this latter class, I suspect, is an article in one of the medical periodicals, published on the first of January, entitled, "North London Hospital—Recent operations of removing the superior maxillary bone." This not only cannot be the production of the Editor, but has evidently emanated from some one who is either ill-informed or ill-advised, or both. In many of its readers the perusal of this apparently puerile effusion must have aroused a "virtuous indignation;" and I do not hesitate to point out the errors of evil tendency with which it teems.

Mr. Liston, having acquired in Edinburgh the enviable reputation of being in his profession *facile princeps*, migrates to a wider sphere of action. A celebrated stranger, he is looked upon by most persons with interest, by some with suspicion; he is watched by both parties; his hospital is the field in which he is to show himself, and by his practice there his professional powers are to be tested. The performance of the operative part of his duty (though I deny that therein lies his *forte*), is naturally the most striking, and the first to be canvassed. Several cases present themselves, demanding serious, difficult, and somewhat unusual operations. These are performed in a style to which the spectators are rather unaccustomed,—coolly, rapidly, safely. The unprejudiced are unqualified in their praise; others admit the skill and dexterity displayed, but are sceptical as to the expediency of proceedings so terrible, until satisfied by the successful results. Others, I fear, are envious spirits,—they "believe and tremble." Inwardly admitting the talent of the surgeon, and the excellence of the cure, they, nevertheless, with ill-directed industry, strive to represent the matter to others in a disparaging point of view. I do not mean here to assert, that from this spirit the article in question had its origin, but I do think that it does not display the feelings of liberality and the even-handed justice which it ought. The writer obviously aims at affixing a stigma on Mr. Liston and his operations. Let us see how far he has succeeded in his object.

We are told that the upper jaw is liable to disease and subject to excision; that surgery is, in the present day, superior to what it was formerly; and that malignant diseases are apt to bring the knife into disrepute. Besides these self-evident facts, two things are proved,—"the ill success of such operations (for malignant growths) in general, and the information and humanity of surgeons." In return for these "two things" I would beg leave to offer in exchange two simple questions,—1st, Why should the "ill success of such operations *in general*" detract from the good success of two operations in particular? And, 2ndly, Is not the surgeon who dexterously and safely removes a hideous swelling (which, if not of evil disposition, is, at least, tending towards it), and thereby restores his patient to health, comfort, and happiness,—is not he both better "informed" and more "humane" than the surgeon who, under similar circumstances, with a wise shrug of the shoulders, and a scientific shake of the head, expresses pity for the suffering patient, but leaves the disease to run its course unmolested, and the fellow-being unassisted, to drag out a miserable existence, harrassed by his fell destroyer?

"The day, indeed, for flashy operations is gone by." What does the writer mean by the elegant expression "flashy?" If he mean tinsel, gaudy, empty show, then I agree with him that this is not the time for such displays; for, according to his own statement, surgery has made some progress during the last twenty years. But if he mean by "flashy" what is eminently good, and, at the same time, new and uncommon, then I think the term rightly applied to Mr. Liston's operations on the jaw; and, at the same time, I cannot suppose that the time will ever arrive, when what is an improvement in science, or a boon to suffering mankind, ought not to be accomplished.

"The refinement of our manners is disgusted at the exhibition of what wears more the aspect of clever butchery than of science; and the amount of our experience both tells us how to prevent, and when to avoid, operations." I have heard of the march of improvement, but this exceeds my most sanguine expectations. Operations, formerly the *opprobria* of surgery, are now exploded,—they are "avoided and prevented," I presume, because now quite unnecessary. I fear that this is too good news to be true. The "manners" of the surgeon, too, are so "refined" (!) that he is "disgusted at the "clever butchery" of an operation, however skilfully performed, and although it prove eminently successful in its result. Which is more like the trade of the butcher,—the making of a wound in a vein, and thereby draining a poor man of almost all his blood, as if he were a calf, or cutting away, by operative measures, which for their accomplishment require great skill, energy, and experience, what would otherwise shorten and embitter the life of a fellow-creature?

"Formerly the report of the performance of an operation peculiarly severe, would have excited astonishment, attracted admiration, and contributed greatly to the reputation of its performer; *now* the question is instantly asked, 'Can that have been required? Is it warrantable and judicious?' and until this question has been satisfactorily answered, the impression is against, and not for, the operator." The question has been most satisfactorily answered, and, by the writer's own showing, the impression is, therefore, *for* the operator. Nor will any efforts such as these have any power in turning or diminishing the tide of public approval. That Mr. Liston's operations were "required" to save the patients from death, with additional horrors, past experience has shown. That they were both "warrantable and judicious," their own successful results triumphantly demonstrate.

After these prefatory remarks two cases are copied by the critic, from the Hospital Reports of THE LANCET, in which cases the superior maxillary bone was excised for the removal of solid tumours, by Mr. Liston, the patients making excellent recoveries, and remaining free from the disease.

The simple fact of the complete success of the operations might have satisfied most people as to the ability of the operator; but the "reviewer," admitting the manual dexterity of the surgeon, is sceptical as to his diagnostic powers, and "is tempted to inquire, are there really any means of forming such a positive opinion with respect to the malignancy or non-malignancy of a morbid growth, as Mr. Liston is said to have uttered, and seems to have acted on?" Now, it could never enter the imagination of any one, that the writer of the article in question is able, or is expected to be able, to know "what is what" in tumours of the superior maxilla; but he ought to have recollected that Mr. Liston is a man of admitted ability, somewhere about mature age, who has dedicated much of his time and talents to the investigation of these very tumours, and, therefore, may be expected to know something with regard to them. I assert, fearless of contradiction, that Mr. Liston's labours in this department of pathology, have proved him to possess a complete knowledge of these tumours,—capable of leading to a wonderfully accurate diagnosis in any particular case, and at once determining the question either of operation or non-interference; and further, that any one of ordinary talent and industry may arrive, by perseverance and experience, at the same happy result. The history and external characters of the solid, fibrous, or cartilaginous tumours of the superior maxilla, in which operations are entitled to success, are very different, indeed, from those of the soft, medullary, encysted, or bloody growths, in which anoperati on would be an unnecessary cruelty, or a faggot added to the already blazing flame of malignancy. To the distinctions between these opposite classes of tumours, Mr. Liston has frequently directed the attention of the profession, and it is not his fault if some people are blind because they will not see.

The writer next remarks,—"It is well known that slow growth, and a fibrous structure, in a tumour, are no guarantee against its cancerous nature;" and he adduces two wretched cases in support. This is very shallow work. Every one will admit the truth of his observation, but every one will, at the same time, see that it does not at all apply to the cases in question. "Slow growth and a fibrous structure" are *but two* of the characters of that tumour of the *superior maxilla* with which it is prudent to meddle. If he will take the trouble to inquire into Mr. Liston's views on this subject, he will find that *many more circumstances* must combine with "slow growth and fibrous structure" before Mr. L. will *recommend* an operation for removal of the disease. It is, therefore, a willing perversion of his published doctrines, to attempt to lead people to believe that his diagnosis is founded on so meagre a foundation as the above quoted passage would insinuate. The cases which are brought forward are not only extremely imperfect, but also totally inapplicable to the question at issue. What relation has "a fibrous tumour, which sprung from the condyloid end of the *femur*," with the solid tumour of the *upper jaw-bone*? Is the writer, also, not aware, that the superior and inferior maxillas widely differ as to the tumours to which they are liable? They, as well as the end of the femur, are all bones, to be sure, and, therefore, in their diseases, are subject to the same general laws; but in their minuter relations, as to situation, function, liability to accident, peculiarity of formation, proneness to disease, and power of generating morbid growths, they differ most widely, the one from the other. Neither time nor space will now permit me to enter fully on this subject; but I say, let the individual who is the writer of the remarks in question, *study* Mr. Liston's views regarding it before he again ventures to scribble upon points with which he, "the writer," is almost totally unacquainted.

Next, the reporter of THE LANCET is rebuked, because he rejoices in the success of Mr. Liston's treatment, and he is tauntingly informed that "such excessive demonstrations of delight and confidence wear a premature and rather ridiculous aspect." Why? Because time cannot glide fast enough to let it be known whether the patients remain for ever free from the disease. Whose fault can that be? The second sight is now no more. Is it not enough that in *similar* cases the patients have enjoyed an immunity from the slightest return of the disease, either in

the original site, or elsewhere, *for years*, and that the individuals in question still are, and afford every ground to believe that they will continue to be, alike fortunate! Out upon such premature and ridiculous *critics*. This part of the subject is wound up by a quotation about the cuckoo, meant, I suppose, to be applied to the reporter of THE LANCET. Does the writer know what is a *titlin?* It is a tiny bird, which is always following the comparatively large and important cuckoo, probably with anxiety to perform any service, however dirty, that the cuckoo may require.

Next is quoted a case, terminating fatally, in which Mr. Liston may have allowed his better judgment to be swayed by the entreaty of his patient; and that case has been eagerly laid hold of as a savoury conclusion to the invidious article.

In consequence of the success of the two previous cases, patients with diseased jaws naturally applied at the *North London Hospital* for relief. One of these, a man of broken-down constitution, who, it is afterwards discovered, has led a most dissolute life, presents himself with a tumour of the superior maxilla, with which, although of small size, Mr. Liston is unwilling to interfere, the attendant circumstances inclining him to suppose the case to be unfavourable for operation. The man, however, is importunate, and insists on trying the chance of cure, desperate though it be. Mr. Liston, before operating, states, publicly, that he "undertakes the operation, not from choice, but on account of the urgent solicitation of the patient," and hopes that the removal of the growth may precede the active development of malignancy in its structure. His fears are realised; the tumour proves to be, when excised, not of the benign kind; and the previous habits of the patient exerting a strong and baneful influence, he sinks under the shock of the operation. What does this case prove? That Mr. Liston was right in his diagnosis,—that his error, if error it be, was not an error of judgment, but one of feeling, nothing more. The most malicious commentator cannot successfully twist the facts of the case to militate against the dexterity, judgment, science, or "humanity," of the operator, and the writer, in attempting this, has failed, as usual. He wishes us to believe that Mr. Liston operated in this case, supposing the tumour to be benign, whilst he has printed evidence before him that Mr. L. stated, previously to the operation, his belief that the morbid growth was *mali moris!* In this the writer, at all events, displays "sagacity" of a very "contradictory character."

He then, in a tone of affected high feeling, reprobates Mr. Liston for having yielded, unwisely, to the wishes of his patient. For this Mr. L. deserves no censure, but, on the contrary, praise, for he humanely perils *his own professional reputation* to give a fellow-creature the only chance of safety from a lingering and horrid death. Nor do we think, that either "the interests of humanity or the character of science" can be injured by conduct so singleminded, so *humane*, and, in every point of view, so laudable.

Mr. Liston, in his comments on this case, had considered it rather a favourable circumstance, that the tumour had followed a blow. The writer here taunts him with ignorance of pathology, and thereby displays his own. He states that when a morbid growth follows a local injury, "that is presumptive evidence for, rather than against, constitutional vitiation." If an individual receive a blow, anywhere, and a swelling slowly forms in the part injured, and if another individual have a morbid growth in a corresponding situation, where no local injury has been sustained,—in which patient is the "constitutional vitiation" most likely to exist? The all-sufficient writer will, I fear, find few well-informed men hardy enough to say "in the former."

I have to apologize for the length of my remarks. In self-justification it appears to me to be sufficient to state the motives which have dictated them. They are two-fold,—respect for the name and character of Mr. Liston, and regard for the interests and advancement of surgical science. I have the honour to be, Sir, your obedient servant,

A WELLWISHER TO TALENT AND TRUTH.

Jan. 23, 1837.

LONDON MEDICAL SOCIETY.

Monday, January 30, 1837.

Dr. LEONARD STEWART in the Chair.

THE INFLUENZA, AND ITS TREATMENT BY BLEEDING.

Dr. CLUTTERBUCK this evening presented to the Society a paper on the present epidemic. After speaking of the great interest attaching to the subject, the author remarked that epidemics of this kind had been known for about 300 years, and that there had probably been many before, not recorded, though it was likely that their history would be of little benefit as affording precedents for the treatment of the present general catarrh, since all epidemics were more or less modified by circumstances. In the present epidemic the great outline of symptoms was strikingly similar in the generality of cases, though variations existed in particular instances. It generally commenced with a chill, followed by rigors, then heat and dryness of the skin, sneezing, lachrymation, and pains in the head, back, and limbs, with a frequent and small pulse, white tongue, and watchfulness. It bore in many

particulars a strong likeness to the measles, and the author had occasionally expected to see the eruption of that disease in cases which occurred in children, but of course he did not detect it. In some patients there was sore throat; in more severe ones, vomiting and delirium; and in one case he had seen actual phrenitis. The symptoms, however, were, generally, slight and trivial, like those of common catarrh, generally lasting ten or twelve days. If the bed was kept for a couple of days a perspiration broke out, and the case went on well. The nature of the disease, he should say, was specific, arising from a specific cause—using the word *specific* to distinguish it from common disease—taking on all the characters of ordinary catarrh, with the addition of cerebral disease. We were ignorant of the cause of the disease, but it was evidently, directly or indirectly, connected with atmospheric changes; but whether resulting from a physical change in the atmosphere itself, or from the air becoming the vehicle of some noxious matter, was a mystery. All means of prevention were, therefore, unavailable. In the *treatment*, its specific nature must not be forgotten. It *would* run its course. The object, therefore, was simply to palliate, not to aim at a cure. In the majority of cases little or no medical treatment was required, but where the fever ran high, or the pain in the head was intense, or respiration was difficult, or pain in the chest was severe, with harrassing cough, a high degree of arterial excitement was denoted, requiring antiphlogistic treatment, and bloodletting, as the most effectual means, was to be resorted to. This should be employed as early as possible. Eight or ten ounces taken away during the excitement considerably mitigated all the symptoms; the pulse became slower, the skin moist, and, if the lungs were affected, that sub-acute inflammatory state which engendered phthisis was prevented. If, at a later period of the attack, inflammatory symptoms again appeared, bleeding was again to be employed, though not to the same extent as at first. Regarding the strength and age of the patient, the author did not consider that either infancy or old age opposed decided objections to bleeding, where the symptoms appeared to require it; but in those two conditions it was necessary to resort to the depletion early. He did not place much reliance on the other means which had been recommended, such as tartar emetic, mercury, or camphor. Indeed, he had seen a case in which the disease attacked a person affected with ptyalism, without mitigation of the severity of the epidemic. Blistering, after the venesection, was occasionally useful. Opium must be used with the greatest caution. In old catarrh little good could be done. True, stimulants might be employed, but to stimulate was not to strengthen. The blood, in all cases, presented the usual inflammatory characters.

Mr. DENDY observed, that, according to his experience, bloodletting, in old persons and children, did harm. The greatest cause of fatality was the quantity of mucus collected in the air-passages, producing suffocation. In one or two instances which he had seen, where every symptom of arachnitis existed, he had only depleted with a few leeches, or a single cupping-glass, yet even the abstraction of three or four ounces of blood thus was not borne well. He considered that the chief object was to check the excessive secretion in the air passages. On what did that excessive secretion depend, and what was the best remedy for it? He had tried, at the expiration of two or three days, and after the use of purgatives and diluents, two or three grains of quinine, given three or four times daily, and though not so successful as he expected it would be, it, nevertheless, in some instances, did good.

Mr. MERYON had found hot-air baths, at the commencement of the attack, useful in two or three cases. He had noticed that all his patients complained of an irritable tingling about the nares, or the eyelids, during the last days of the disease. Ipecacuanha was the most useful medicine in bringing up the mucus. He had had a remarkable case of a gentleman whose body was affected with influenza only on one side. Half his tongue was furred, and he had neuralgic pain on one side of his face and body only.

Mr. PROCTER had suffered severely from the disease, which, in his opinion, was not inflammatory. He experienced such decided rigors at the commencement, with such a languor of the circulation in the extremities, that even hot flannels did not impart warmth to them. Perspiration followed this symptom, and spontaneously. He had also had shifting pains in some parts of the muscular system, with excessive pain about the frontal and other sinuses, much aggravated on coughing, with neuralgic pains of the face on the right side. The disease in him was intermittent, leaving him in the day, during the hurry and fatigue of business, and returning at night, and lasting until two or three o'clock in the morning. He found that various pains about the chest and throat gave way before the counter-irritation of a mustard plaister. He subsequently went into a state bordering on the typhus mitior. He took four grains of quinine three times a-day, and was quite well in a day or two. He had never bled in any case, from fear of the subsequent debility.

Dr. CLUTTERBUCK considered that this was a mistaken fear. The typhoid state alluded to would be prevented by judicious venesection.

Mr. HOWELL had bled young and robust

patients; and he thought that the disease was thus mitigated and shortened. Where he did not bleed, tartar emetic and sulphate of magnesia he had found extremely useful. The cough was always much relieved by purgation. He thought that blistering was useful. Instances of sudden death had occurred in this disease, such as he had noticed in no other. Patients who appeared to be going on well in the morning, sank and died without any evident additional cause in the evening.

Mr. BRYANT had been afraid of employing active depletory measures, from observing the remarkable depression of power in all cases of this affection. He did not mean to say that he had not seen a single case in which bloodletting might not have been employed with safety, but he should say, that in the generality of instances it could not be resorted to without danger. The persons whom he had seen to perish were old, and previously affected with asthma, or some other chronic affection of the lungs. He had known patients to die in the manner mentioned by Mr. Howell, but they were either children or old persons. After death the bronchial tubes were found completely filled with mucus. He feared that the recommendation of bloodletting, to the profession, by Dr. Clutterbuck, would produce mischief, by causing bleeding to be resorted to too indiscriminately.

Dr. CLUTTERBUCK said, that he had not grounded his opinion on two, or even on twenty cases. Bloodletting, when employed with sufficient caution, was as safe as it was useful, and was not to be put aside by mere negative evidence. It should not be employed indiscriminately, or it would, indeed, do harm. The objection to bloodletting arose from the want of observing a distinction between cases. Of course, he would not bleed in the chronic bronchitis of old people, in which the mucous membrane was thickened, and interfered with the respiration.

Mr. DENDY considered that no doubt existed that many cases might occur in which venesection would be beneficial. He had only employed it for one patient, a young lady, in whom pleuritis had supervened on the influenza, and in that case he felt no hesitation in taking twelve ounces of blood, and she recovered as quickly as other patients. He had witnessed the post-mortem examination of a woman who had died suddenly, as in Mr. Howell's cases, in whom there was a dark crimson hue of the fauces, with inflammation and points of ulceration in the trachea, down to the bifurcation of the bronchii. "The lungs were drowned in mucus." He had not yet lost a case, though he feared that he should lose two, one an old person, and one a child. These cases had set in since Friday week, on which day the epidemic had assumed, he thought, a worse character.

Mr. BRYANT said, that the great majority of cases witnessed by him, occurred among eight hundred paupers, who laboured under mental depression, from their condition. This would affect the character of the disease. In the greater number of cases he did not hesitate to say that depletory means could not be safely resorted to. Two fatal cases had occurred in his private practice, but neither of them exhibited a symptom requiring the use of the lancet.

THE LANCET.

London, Saturday, February 4th, 1837.

ALTHOUGH the exclusion of physicians and surgeons who are not, and who have not been, General Practitioners, from the Council of the BRITISH MEDICAL ASSOCIATION seems, at the first view, to be a harsh proceeding, yet we feel perfectly assured that, as a matter of *expediency*, it will prove sound *in practice*, and of the utmost value to the character and *utility* of the Association.

The Provisional Senate justly contend for the right of establishing, as a qualification for admission to the Council, a condition which shall be recognized by the immense body of English medical practitioners, as being fully adequate to prove that the *education* of the Councillor qualifies him for his office, and, furthermore, that that education has been of a character which is best calculated to identify him, in feeling and interest, with the constituent body of the Association. It is not enough to qualify him for admission to the Council, that a man be a "medical practitioner,"—it is not enough that he be a "hospital physician," or a "hospital surgeon." It is not sufficient that he be a graduate of one of the English, Scotch, or Irish Colleges, or Universities, for were either of these grounds of qualification to be accepted, many *quacks* might contend that they were eligible for the office of Councillor. The qualification which the

promoters of the BRITISH MEDICAL ASSOCIATION have selected, is of a far different character; and we are convinced that their minds are of too masculine a description, that their purposes are too firmly fixed, that the objects which they have to attain are of too much national importance to allow them to yield, or be softened, in any respect, by the puling twaddle which a few old women in breeches would pour into their ears on this occasion. The qualification which the Provisional Council demand, is one which refers to *education*, as well as to condition in life,—to mental capacity as well as to the *feelings* of the individual,—and they have acted with perfect and undoubted propriety in determining that no man shall be admitted into the Council, whose habits, professional pursuits, or *want* of medical education, might render him incompetent to execute the high and important trusts which must be committed to his charge. The General Practitioners of England and Wales form an association to relieve themselves from a galling and persecuting thraldom. Are they to be relieved by their own agency, or through that of persons who have an interest in rendering their slavery and degradation *perpetual*?

But, then, it was said, at the late meeting, that the number of "physicians" and "surgeons" who could be admitted, would be so small, that no danger could arise therefrom. This is a mere begging of the question. Such a canting pretext is incapable of influencing the stout hearts and the firm purposes of men who have resolved to cast from them, and for ever, the shackles by which their energies have been so long confined, and the instruments of annoyance by which they have been so long perplexed and injured. Pure physicians and pure surgeons are not rendered ineligible to sit on the Council because they are *immoral* men, because they are *disreputable* men, because they are incompetent as practitioners in *their particular vocations*, but because they have never been in a condition to be affected by *events* of a nature which could induce them to sympathise with the sufferings which general practitioners have endured. The principle of *exclusion* adopted by the British Association, having *this* origin, and *no other*, is sound and just, and cannot be affected by the mawkish sentimentality which would be urged against it by persons of weak minds, or by the more feasible objections of the knavish corruptionists. If the Provisional Council of the new Association were insincere in their professions,—if they were indifferent as to the results of their labours,—if they valued more highly the smiles of the Pures than the approbation of the thousands of their persecuted brethren, then would they have pursued a different line of policy. An investigation into the causes which have produced the failure of other associations, prompted them to take that bold and manly course which would at once insure the good will, and secure for their Society, the confidence, of the General Practitioners of this country. *Expediency*, as well as *principle*, had to be consulted in arranging the constitution of the Society.

With regard to the *practical operation* of the law of exclusion against the two classes of Pures, we may observe, that it can be of none effect, with respect to the excluded persons; but the enemies of the cause gladly converted the disqualifying safeguard into an objurgatory regulation, and represented it as corrupting all the fundamental principles of the institution. It is fortunate for the Society that the corruptionists and their hired tools and agents have manifested their real disposition at so early a period. At a more mature age of the Association the miscreant conspirators might have betrayed the cause, and plunged the Association into difficulties, by pretending to be the friends of the establishment, whilst, in reality, they were acting merely as spies, and as the implacable foes of the rights of general practitioners. Happily, their dread of the success of the Association has carried them into a premature disclosure of their malignant intentions and objects. Henceforth they can merely offer a feeble and

fruitless *opposition* to the successful and triumphant progress of the Association. Had their cunning been equal to their knavery, they might have been in a condition to betray, but now that danger cannot be encountered.

In the conflicts of opinion which are often produced by the attempts that are made to improve our institutions, it frequently happens that the attention of the opposing parties is confined to present objects, and that no consideration is bestowed on the history of past events. Even the character and tendency of our own previous conduct are lost to the memory, while the mind is excited by angry discussion. Only a short time since, the Licentiates of the College of Physicians considered that they were the victims of persecution, owing to the state of the law under the sanction of which the Fellows and Censors of the College exercised their functions of government. The Licentiates combined, formed an association for their mutual protection, petitioned Parliament in a body, and endeavoured, by every available means, to rid themselves of their grievances, improve their position, and obtain a higher footing in the College, and a more secure standing, according to the provisions of the law. Did the Licentiates ask General Practitioners to join them in those efforts? Was a single surgeon in general practice admitted into their Association? Was the name of even one General Practitioner seen among those of the Licentiates in the petition which was presented to the Legislature? We may even go a step further, and ask, Were the graduates of the Universities of Edinburgh and Glasgow who were practising as physicians in London, but who, having treated with contempt and scorn the insolence and tyranny of the Fellows of the College, had refused to be examined for the licence,—were those independent physicians permitted to combine with the Licentiates for the common and obvious purpose of improving the position of the Licentiates? Why, not a man of them, *not a man* of those graduates, was invited, or even permitted, to enter the society which the Licentiates had formed. The Licentiates acted as a perfectly exclusive body, having, moreover, among its members, the most virulent opponents of the present Association, because, as they allege, one of its laws is founded upon "a narrow-minded principle of exclusion." Such conduct may be "honest," but it is neither rational nor consistent. The Provisional Council do *not* exclude from the offices of the Association "physicians" and "surgeons," simply as such; but because certain portions of those classes happen to be divested of that qualification the possession of which could alone render them eligible, in the estimation of the general body of surgeons in this country. General practitioners who may have become physicians and *consulting surgeons*, are eligible to be elected on the Council, provided they have passed through that ordeal in which the interests of the medical profession are already involved. In justice, also, to the Provisional Council, it ought to be remarked, that the pure physicians and pure surgeons, in the *Provincial Medical and Surgical Association*, have completely ruined that institution, and rendered it an abortive undertaking. General practitioners have not now to be told that the physicians have never made a single effort towards obtaining for the great body of the profession a reformation either of the government of our colleges, or of the defective state of medical law. Farther, it may be remarked, that physicians and pure surgeons have been the active promoters of infirmaries, dispensaries, and penny-clubs, the whole of which have proved to be most effective contrivances for detracting from the general respectability of the profession.

After having bestowed upon the circumstances whereon the Provisional Council of the British Medical Association had to form their opinions, and frame their laws, a most careful and deliberate attention, we remain unshaken in the conviction that the Council have acted with becoming intelligence, courage, and prudence, in declaring

that the seats in the Senate of the Association shall only be occupied by gentlemen who either are or have been General Practitioners; and that if they should be induced, in a fatal moment of weakness, to yield up this regulation for one of a less wise and stringent character, they would thereby undermine the present solid foundation of their institution, and detract, most sensibly, from the confident expectations of its utility, and accomplish, possibly, its speedy and certain destruction.

HOUSE OF COMMONS,

Tuesday, January 31, 1837.

Mr. WAKLEY gave notice, that on Tuesday the 21st of February, he should move for the appointment of a select Committee of the House, for the purpose of instituting an enquiry into the efficiency of the system of medical treatment which had been provided for the sick poor, in the parochial unions which have been formed under the Poor-Law Amendment Act.

Mr. PENRUDDOCK, the medical student who was accused of having assaulted Mr. HARDY, and others of the Examiners of Apothecaries' Hall, with a life-preserver, was tried on the capital charge, at the Central Criminal Court, on Wednesday, when a verdict of "NOT GUILTY" was returned by the jury.

THE INFLUENZA,

Which has recently produced so much alarm, and has caused so great a mortality in this metropolis, is on the decline, the attacks made by this malady having become far less numerous, and being evidently mitigated in severity; but as it has presented so many points of interest, we shall add to our late remarks on the subject some further observations.

Respecting the cause or causes of the invasion of this disease, we are unable to furnish much additional information, though the subject presents a wide field for speculation. Accurate district reports can alone be expected to supply data for correct opinions on this subject. These would, at least, enable the profession to ascertain what circumstances of situation, soil, and occupation, seem to favour the reception and propagation of the malady. On these heads, indeed, much interesting matter might be collected in London alone, for the variations in its substratum are numerous; siliceous, argillaceous, &c.; in the one case absorbing moisture with facility; in another presenting the greatest obstacles to the transmission of fluids. Nowhere could we look for more correct thermometrical, barometrical, and hygrometrical reports, to enable us to ascertain the degree of influence exercised on the health by particular states of the atmosphere. To chemical observations we may, at no distant day, become deeply indebted in this respect. Several correspondents have offered to us suggestions on the subject. One of them proposes the transmission of a large vessel of air from some situation where the disease prevails with extreme severity, to a district in which it has not been experienced at all, or is comparatively mild, there to be inhaled by a healthy person. Probably since the epidemic has excited so much attention, some of our chemists may be induced to preserve a vessel of the air now encompassing us, for careful analysis on a future day, or experiment on the lungs in a more healthy season. An opinion of its infectious nature at present might rest upon the simultaneous attack of several individuals in or near the same locality at the same time, some of whom were occupied out of doors and exposed, while others were within and not exposed. The cause would thus appear to exist in the atmosphere. Some may believe that it is contagious, from the circumstance that very many persons, infected in localities where they have been employed, have, on returning home, soon found themselves surrounded there by a sick circle, previously healthy. In numerous such cases it extended in Protean forms to all the individuals composing a family. It should be remarked, however, that the irregularity in these domestic attacks occurred much more frequently at the first appearance of the influenza, and at present, (when the number of those attacked is considerably diminishing), than at the period when the epidemic was at its height; when

not interrupted at that time, it passed through its phases with very great regularity, but in every instance, and at all times, it evinced itself as a fever, *sui generis*, never, even in its earliest stage, to be cut short by treatment, as a common cold, though capable, by judicious management, of being rendered, in its subsequent progress, much more mild. In almost all cases, too, and under almost every form which it assumed, a nearly similar line of treatment was adopted with success in the cases which have fallen under our own observation.

So far as inquiry has enabled us to form a judgment, the disease is produced by some infectious poison, gaseous or miasmatous, suspended in the atmosphere, favoured, perhaps, in its transmission from place to place by moisture, and promoted in its reception by the respiratory apparatus, by moisture in the air, and by the action of cold debilitating the parts to which the poison is applied. It may be said that as this infectious principle must be applied to the whole respiratory tract, it ought at once to produce general bronchitis in the individual, as well as coryza; but to this it may be answered, either that those parts which are attacked are alone so constituted as to be capable of receiving the infection, or that the poison becomes modified as it passes on; at all events the action of some such poison, whether thus received, and thence transmitted to the whole system, or received by the whole tract, and then re-acting on those points chiefly which are affected, seems to cause the production of the disease. Thus the infectious principle of measles acts only on particular parts of the system, though it is received into the system in a similar manner. With reference to the first condition it might be worth inquiring how far the increased action set up in mucous surfaces when exposed to any irritating matter, protects, as has been supposed, the constitution against its introduction. This much we certainly know, that in many cases where these symptoms of local irritation ceased, or were imperfectly developed, the constitutional irritation became much more severe.

The approach of the disease, in what may be called its regular form, has generally been indicated by trifling cough, however little noticed, more or less uneasiness, sometimes amounting to pain in the bones, or, rather, what has been described as a sensation of bruising in the osseous system, lassitude, and slight chills. On the succeeding morning, after a restless night, severe headach, commonly referred to the situation of the frontal sinus, was complained of, frequently, however, especially in one variety, seated in the occiput. The pains in the bones had now also greatly increased; they were sometimes described as lancinating, sometimes as gnawing, and often stated to be intolerable. Sneezing, and a watery discharge from the nostrils, with running from the eyes, followed in the course of the day, accompanied by cough, which was now severe, peculiar, and spasmodic. Towards evening on this day there was commonly great prostration, at times excessive, extreme oppression and difficulty of breathing, and, invariably, rigors, often most severe; it appeared, in fact, as if slighter chills experienced on the day preceding had marked the reception of the disease, evinced by the catarrhal symptoms on the following day, the rigors indicating full constitutional affection. After continuing in this aggravated form for a day or two, seldom more, unless the patient would not confine himself to his room, or bed, the disease began gradually to decline. While at its height, in many cases, sore throat, in several deafness, and dimness of sight, generally of but one eye or ear, in some, pain over the maxillary sinus, were complained of. Soreness of the sides and tip of the tongue, frequently, and, occasionally, apthæ were also noticed. In these cases the tongue was generally white, furred along the middle, or red, with the papillæ elevated; sometimes glazed and dry, and at other times dry, brown, and coated. There was often considerable thirst, more rarely nausea. The bowels, with very few exceptions, were more or less confined, and free from pain. The urine varied extremely, in quality and quantity, as before stated.

The crisis was generally marked by a gentle perspiration, and, in those cases in which the urine had been scanty and high coloured, by a lateritious sediment and an increase of the quantity, all the other symptoms becoming ameliorated at the same time. Some additional complications with other states have been observed since our previous notice of the epidemic; one of these, indeed, namely, its occurrence in pregnant women, and production of miscar-

riage, we then omitted to mention. Of three cases where miscarriage has taken place, well-marked catarrhal symptoms had previously existed in two of them for three or four days, followed by pains in the loins, and rapid miscarriage; in fact, in both it occurred before medical assistance could be procured. In a third case, which was attributed also to a cold, miscarriage took place very early. In the fourth, notwithstanding the invasion of severe pains in the lumbar region, nausea, &c., early attention and treatment prevented a disastrous result. This case was followed by vesico-urinary catarrh, which, accompanied by scalding, was observed also in one of the first-mentioned cases. Two very severe cases, in which pneumonia supervened before medical aid was obtained, have occurred in the locality in the centre of which we write. In one of these the side was completely dull, slight bronchial respiration and bronchophony only being audible during ordinary, and a very minute crepitus during forced, inspiration.

We have little further to add respecting the treatment, except that in no case was bleeding found expedient. In fact, such is the *constitutio anni*, that in very few diseases does bleeding seem to be judicious, as a remedial means. Tartrate of antimony and potash have never once disappointed in the course of the epidemic, in any one of the forms it has assumed, whether complicated with erysipelas, arthritis, or bronchitis. Even in those cases where the pulse was very feeble, its employment was equally attended by advantageous results, and, far from creating depression, it acted partially as an excitant, by removing disease. The existence of bowel complaints, which were only present in three or four cases, alone contraindicates its use. In the suffocative catarrh of children, after the ineffectual trial, in one case, of the protochloride of mercury and ipecacuhana, given at first with aperients, and subsequently, when the expectoration had become profuse, and the powers of life had begun to fail, ammonia and blisters being employed with but temporary benefit, the cautious administration of tartrate of antimony was followed by complete success. In the pneumonic cases, the administration of the protochloride of mercury, in small and repeated doses, to the extent of 6, 8, and 10 grains a-day, with dry cupping over and below the scapula, was successfully employed. For the dysentery, turpentine fomentations, and the protochloride of mercury and muriate of morphia, have been equally useful. In the colic, aperients; in the spasmodic vomiting, draughts, composed of aromatic spirit of ammonia, rhubarb, magnesia, and liquor opii sedativus, with mustard cataplasm, removed the symptoms. Full doses of castor oil were, in some cases, serviceable aperients.

In the pneumonic cases, hydriodate of potash appeared to complete the cure which the mercury had nearly accomplished, the hydriodate removing the soreness of the mouth, and diminishing the subsequent debility. At the commencement, and at the decline, of the attack, occasional hot baths were useful. It is proper to add, that in some cases, in which we understand bleeding had been employed, the results were far from being favourable. This was particularly the case, when, misled by the urgency of the symptoms, it had been employed at the onset of the attack. Valuable assistance was derived from the use of the wine of the seeds of colchicum in the arthritic varieties, and from the sulphate of quinine in the intermittent, and in those cases of bronchitis which were attended with profuse expectoration and feeble pulse. In many cases dry cupping, directed to roomy parts, was found most decidedly beneficial, and so influential in its operation as sometimes almost to produce syncope, the pulse falling, the livid lips becoming pale, and subsequently gaining some degree of redness. Blisters, in the latter stages of the attack, were also serviceable.

THE DUBLIN COLLEGE AND SCHOOL.

When it is considered how great a nuisance, and what an insult to the members of the College of Surgeons in Ireland, nay, what a national injury and a national disgrace, is Messrs. Jacob and Harrison's academy for young surgeons,—when it is observed that the whole medical profession, more especially in Dublin, has pined away beneath that baneful monopoly,—when it is clearly seen that this all-paralysing incumbrance has ever acted as a drawback upon science,—and when the astounding fact is borne in mind, that this selfish and iniquitous job has been all along, and still

is, completely at the mercy (whether for modification or utter annihilation) of those very members whose interests have been so scandalously sacrificed to it, it must be confessed that there is apparently just reason for amazement at the suicidal infatuation of men laying claim to common sense and intelligence, who have not long since liberated themselves and their corporation from the knavish and parasitic institution.

The marvel, however, lessens to him who, with a philosophic eye directed either to the pages of history, or the every-day experience of life, has marked the actions of the masses of mankind. Notwithstanding the boasted prerogative of man, how seldom are men found, associated in numbers, acting from reason and judgment! Habit, feeling, prejudice, or even a word, a senseless word, that never reaches the intellect, but brings, by some almost necromantic influence, the passions into powerful play, these, alas! are the sources to which we must too often refer the actions of associated mankind; hence it is,—from this general indisposition to the exercise of the intellectual powers,—that we so often see the interests of the many sacrificed to those of the few,—thewell-being of communities becomes prey of individual thought, individual cunning, individual hypocrisy and falsehood. Nor is it requisite that the unprincipled minority should be men of large minds; experience has shown that intelligences of the meanest calibre, if the one course be stedfastly pursued, are abundantly equal to a successful issue in this course of inverted ambition. Explained in this way, the Hibernian wonder admits of easy solution.

The system of education pursued in the school, and alone required, nay, admitted for the licence, (for the Court of Censors was, and, indeed, still is, but a faint echo of the theatre, the same individuals constantly presiding and officiating in both), was calculated to develop any thing but what it ought, viz., the habitual, patient, and well-disciplined exercise of thought, a philosophical spirit, and a taste for refinement. Instead of these, which ought to be the objects of all education, the most slavish mental thraldom was enforced. Every thing like a proper exercise of the reasoning powers was actually decried, extensive reading was openly ridiculed and despised; in fact, nothing was countenanced but dissection on the one hand, (and this to meet the wants of the merest descriptive anatomy), and, on the other, personal authority in the surgical wards, which cast a gloom upon every inquiry, every dawn of reason, by a dark and mysterious reference to "*his observation and experience*;" those canting phrases, beneath which crafty ignorance and empiricism so often find it convenient to ensconce themselves. Thus, words were received for things, and names confounded with knowledge; every thing hung on individual sanction; philosophy and thought were banished far away; the most tyrannical dogmatism was completely established. It ceases to be a wonder, then, that men trained in such a career should slavishly submit to, and forget to question, the *ipsissima verba* of those whom they had been in the habit of ignorantly worshipping as supreme authorities, *ab ovo usque ad malum*. It was in such palmy days as these that more than one individual flourished, and became a great authority, and "bore his blushing honours thick upon him," who, if he had been submitted to the test of a recenter judgment, would find it difficult, indeed, to procure an inscription for his name upon the scroll of fame.

This paralysing course of education was not unaided; the slavish apprenticeship system lent its powerful influence; and as if these were not enough to debase and degrade the minds of her alumni, the policy of low cunning and falsehood were superadded, to enhance the abominable system of those who managed the college for their own ends and purposes. By the grossest adulation they endeavoured further to weaken minds which were already too much their unthinking instruments, through the medium of the infamous discipline recorded above. "Nothing," they used to cry, "could equal the celebrity of the Irish College of Surgeons; its licence was had in equal honour, and was as much known, among the nations, as the membership of the Institute of France." The public were held to be wrapt in stupid amazement at this proud national wonder. Strange to say, this hecatomb on the altar of surgical vanity actually was accredited, and even at this day, we are informed, there are men who are still fully persuaded of the sublime truth! Then, by a rapid transition, which bore the form of an *à fortiori* argument, all this honour and glory were traced to *the school*. The school and the college were conveniently used as synonymous terms,—their individual identity was wilfully confounded. Any thing demanded for the school, under the pretext of promoting the honour and interests of the college, was, of course, readily granted by unthinking men, thus dexterously played into such good humour with themselves and their *college*.

In later times, as men's minds began slowly to turn against the selfish, befooling, and dishonest casuistry, Messrs. Jacob and Harrison have been forced to break new ground, and often have they been heard recklessly to insist, that the school is identified, by charter, with the college, and its necessary support enacted by law, even, if need be, at the private expense of the members of the college. Well do they know that nothing can be more false and absurd. Such a declaration, however, is not without

its value; it betrays and demonstrates what were the intentions and objects of those who secretly concocted the new charter. It may now safely be affirmed, that if it were possible to drag to the light of heaven the instructions to counsel on that occasion, *this* would be found amongst them, this nefarious attempt to saddle a *private*, infamous, useless, ruinous monopoly, on a useful *public* establishment.

The men of law, however, have betrayed their clients,—*the school is no essential part whatever of the charter*,—that document merely *permits* the appropriation of the college funds to the maintenance of the theatres and schools, (permits, *if the college pleases*), but it contains no binding enactment whatsoever. Neither does it specify to what purpose the schools and theatres so maintained shall be applied. So far as the charter is concerned, they might all be levelled with the dust to-morrow; or they might be let to Mr. CALCRAFT for a rent; or, what is of more consequence, they might be filled with professors of other topics besides the mere elements of medical instruction, topics which might shed a lustre upon, and redound to the interest of, the profession,—not as now! The college is also permitted by charter to purchase estates to the amount of £2000 or £3000 per annum, but whoever dreams of saying that such *is required* by law? And if the stock-purse be not forthcoming, it must be supplied by drains on the private pockets of the members! and yet one position is as ostensible as the other.

No, in spite of "education," in spite of fraud, in spite of cunning and casuistry, the school and the college have been *diagnosed*, and men begin to see and to feel that a mere private school, which swallows up every thing that might by chance be of public advantage, and yields no return whatever (but to the teachers in it), is but sorry fruit indeed, for such cumbrous machinery as a royal corporation. In spite of Messrs. HARRISON and JACOB's selfish chicanery, men see and feel, that if it be demanded, "Of what use is your vaunted college, and what reason can you assign why sentence of death should not be passed upon it?" they can receive no satisfactory answer in reply, not even in extenuation of punishment; but they must, in shame and silence, point to the school, that useless incumbrance, the fruitful source of many a mischief. They see that if they are to survive such investigation, they must, and quickly, build that hope upon some more solid foundation. *Forewarned is forearmed*.

MR. PHILLIPS' REPLY

TO MR. EVERITT'S ADDITIONAL REMARKS.

To the Editor of THE LANCET.

SIR:—I regret that I am compelled again to address you. I shall do so as briefly as possible.

Mr. Everitt observes, that by a "curious coincidence" the same misprint of *three* for *two* occurs in my translation as in the original; surely Mr. Everitt does not expect that I should remember the quantities of ingredients used in every formula; or that when no doubt arose, I should on every occasion refer to original documents.

The statement is repeated by Mr. Everitt, that one measure and three quarters of water are more nearly required than two measures, to reduce one measure of the stronger solution of ammonia to the weaker one. This is not the case; when these fluids are mixed, neither expansion nor condensation occurs; and calculation coincides with experiment to prove, that when two measures of water are mixed with one measure of solution of ammonia of sp. gr. 0.882, three measures of solution of sp. gr. 0.960 are obtained.

It is remarked by Mr. Everitt, that I have omitted the word *about*, used by him, in directing the quantity of water to be employed in a process: I admit the charge, but deny that the omission in any way affects the point at issue. He says that he did not intend to give the exact strength of the product:—"I said put about (a little word omitted by Mr. Phillips) 30 parts of water." I shall not question Mr. Everitt's intention, but I must maintain that his directions are precise for obtaining solution of ammonia of sp. gr. 0.960, the word *about* applying only to the quantity of water to be put into the receiver, and not to the whole quantity to be obtained, for Mr. E. says, "by the time that the 30 parts of water in the receiver bottle have increased to 35 parts, nearly all the ammonia will have passed over." There is no *about* as to the sp. gr. of the solution, nor any as to its quantity; and either by putting water into the receiver or by distilling it with the ammonia, directions are distinctly given for obtaining 35 parts of solution of ammonia of sp. gr. 0.960 from ten parts of muriate of ammonia.

Permit me to add, that corrections of some errors occurring in the translation, may be had of Mr. Highley, Bookseller, 32, Fleet-street. I remain, Sir, your obedient servant,

R. PHILLIPS.

P.S. Your correspondent, Mr. Whipple, has detected errors in three formulæ which I *have* committed, and charged me with about the same number which I have *not*.

REPLY

TO THE CHARGE OF WHITEWASHING DUBLIN MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR:—Having seen in the number of your Journal for January 14th, a letter containing some mis-statements respecting this hospital, from an individual subscribing himself, "J. R. Cooper, one of the pupils," but who admits he was not an eye-witness of the proceedings of which he writes, I request that you will be so kind as to insert this notice of that letter in THE LANCET. I must, in the first place, observe, that the subscriber of the letter in question, neither *is*, nor never *was*, a pupil of the hospital. The circumstance affected to be described, when divested of decoration, and reduced to fact, was simply as follows:—About two months since, lithotomy was about being performed by Mr. O'Reilly, one of the surgeons of the hospital, on an adult who had previously undergone lithotrity. The case excited some interest, and as pupils from the other hospitals of the city are not usually denied admission here, it was expected that a considerable number would attend to witness the operation. I must inform you that there is a large surgery on the basement story, which is the usual place of rendezvous for the students, and that the operation theatre, the entrance to which is narrow, is on the uppermost story of the hospital. On the day appointed for the operation, the patient and his friends expressed great uneasiness at the expected presence of a crowd, and it was considered prudent that the students should remain in the surgery until some necessary preparations were made in the operation theatre. The hospital was undergoing repairs, and one of the workmen was placed in the *hall*, with directions to request the gentlemen, as they arrived, to wait in the surgery for a *short time*. To this, almost all willingly acceded; but a few turbulent and impatient persons, amongst whom we may, I suppose, include the person signing himself *Cooper*, despite all regulation, assaulted the man, and endeavoured by force to pass up stairs, to the operation theatre, but were very properly prevented by the workmen from doing so, until the time appointed, when the doors were thrown open, and free admission was given to every one. Mr. Sapleton's "demeanour," described as "ruffianly," consisted solely in a remonstrance with those young men on the impropriety and indecorum of their conduct. I am, Sir, your very obedient servant,

GEORGE CULLEN,
Resident Apothecary and Registrar of Pupils to the Hospital.

Jervis-street Hospital, Dublin,
Jan. 24, 1837.

THE INFLUENZA IN THE HOUSE OF CORRECTION.

To the Editor of THE LANCET.

SIR:—The number of cases of severe influenza which have occurred in the House of Correction, where the numbers at this moment amount to nearly one thousand, is one hundred and five, of these ten have terminated fatally, the remainder either have recovered, or are in a state of progressive convalescence. In my letter to the Editor of THE LANCET last week, I disputed the term inflammatory, when applied to this disease, not that I mean to contend that there have not been cases where inflammation has existed, but that the disease generally is unattended with symptoms of that character, and the result of my treatment in the House of Correction, and in private practice, has convinced me I am right. I bled only in one case where the symptoms were doubtful; no relief was afforded, the blood exhibited no appearance of inflammation, and a post-mortem examination confirmed the fact. The treatment I adopted was very simple; a saline aperient, given in effervescence, relieved the pains in the head and limbs, and the frequent nausea of the stomach, and was repeated till the symptoms of fever subsided. Mild mustard poultices removed the oppression of the chest; but what I relied upon most in the treatment of the patients in the prison, whose constitutions do not participate in the advantages of what you term the *well-fed ranks of life*, was supporting the system by a mild nutritious diet, occasionally adding porter or wine, according to the peculiarities of their constitutions, or their previous habits of life, but carefully avoiding all solid food till the cough was subdued, and which, in obstinate cases, required the administration of opium.

The bronchial passages are certainly the seat of the disease, but the attack proceeds from an atmospheric poison, in a highly concentrated form, which fastens with deadly effect upon those more particularly who have been the subjects of lung-affection before, and carries them off with a rapidity hardly credible, and far exceeding what was experienced in the cholera. I believe I am right in asserting, that the mortality of January surpasses any thing which has occurred within the memory of the present generation. I remain, Sir, your obedient servant,

H. WAKEFIELD.

Lansdowne Place, Feb. 1, 1837.

NORTH LONDON HOSPITAL.

CUT-THROAT—AND ITS TREATMENT.

E. C., a female, aged 22, was admitted on December 14, 1836. She had attempted suicide by cutting her throat, in a fit of de-

spondency, with a table-knife. On being discovered, a medical man was sent for, who, finding no vessels requiring ligature, stitched up the wound, and sent her to the hospital, where the wound was found to be nearly four inches in length, and covered with numerous layers of lint. No hæmorrhage was visible; but in the course of a short time, blood was observed to ooze very freely. The lint was removed, and cold applied, which stopped the hæmorrhage for about half an hour; but slight difficulty of breathing, with cough, coming on, the bleeding recurred, and was with difficulty suppressed. Another fit of dyspnœa coming on threatened suffocation, and Mr. Liston, who was going round the wards, was sent for, and discovered the cause of the bleeding and difficult breathing to depend on the presence of a large clot of blood in the wound. The stitches were immediately divided, and passing his fingers into the wound, he removed the clotted blood, and thus gave instant relief. On examining the wound, the os hyoides was found to be bare, but the wound had not penetrated into the larynx. The bleeding was now sufficiently controlled by the application of lint dipped in cold water.

Dec. 15. Slept well last night, and feels better. No bleeding after the water dressing. Continue the same.

16. Improving; the head bandage applied to-day.

19. Going on favourably since last report; the throat is healing by granulation.

Jan. 8. Has gone on well since last report, with the exception of having caught a cold, which has delayed her discharge for a few days.

Clinical Remarks.—In lecturing on this case, Mr. Liston observed, that the subject of wounds of the neck was much neglected by surgical writers, their account of such affections being generally unsatisfactory. The accident was of very common occurrence, and, most frequently, the result of attempts at self-destruction, — it might, however, be occasioned by gun-shot wounds, or other accidents. Wounds of the neck, he observed, varied very much as to their extent and situations. Sometimes the individual in attempting self-destruction in this way, became alarmed as soon as the blood began to flow, and the wound was thus left very slight and superficial. Others, with greater determination, had gone to the extent of dividing all the soft parts, until the instrument reached the vertebræ. In attempts at suicide, the wounds were generally situated very high up, from a supposition, that a wound of the wind-pipe, wherever inflicted, would be fatal, and the gash was accordingly inflicted at the most prominent part of the larynx. It was very unusual for a longitudinal incision to be made by the suicide, but Mr. Liston had seen such cases. In wounds of the throat, particularly if situated high up, the incision would be very deep before it reached any vessels of great importance. In general, the larynx and œsophagus were wounded, without the carotid artery or the accompanying vein and nerves being involved. It would readily be understood, that in wounds of the throat, the breathing was always more or less impeded. Persons inflicting wounds on the throat, did not generally die from loss of blood, although that was often considerable; the consequences, however, which might result afterwards were very dangerous. The hæmorrhage was at first arterial, afterwards there might be a good deal of bleeding from veins, caused by coughing and difficulty of breathing. Patients were apt to suffer from blood, or, later after the accident, from serum getting into the air passages. If the wound was closed early after its infliction, the blood was very apt to be sucked down, until the air cells were gorged, and in attempting to take a full inspiration sudden asphyxia came on, and the patient often thus perished. Getting up the mucus was often exceedingly difficult, and attended with danger. If the surfaces of the wound were not well adapted to each other, or if small, jagged pieces of the wounded surfaces obtruded into the air passages, great inconvenience resulted, more particularly if the epiglottis and root of the tongue were separated from the larynx.

Patients might also suffer from bronchitis, arising from cold air passing down the wound in the larynx. In some instances, persons had suffered for a want of nourishment, and occasionally the state of the mind was such in those who attempted this kind of suicide, that they perished from the depression, much in the same way as occasionally occurred in those who died after operation, the effect of a fear that they will not recover. Others, again, tore open the wound after it had been closed, or refused to take nourishment, and perished in that way.

In the *treatment* of wounds in the throat, continued Mr. Liston, the first thing to be done is to arrest the hæmorrhage. That is not difficult. The head is to be thrown back, the clots of blood are to be sponged away, and ligatures are to be put round those vessels which require them. This effected, measures are to be taken for the prevention of the bronchitis; the patient is to be placed in a room of a proper temperature, and I have been in the habit of keeping some of the warm air from the lungs round the wound, by the application of some woollen covering of loose texture, such as a "comforter." A most ingenious instrument had been lately invented, which had struck him, (Mr. L.), as likely to be very beneficial for this purpose. It was called the "Respirator," and, he thought, might be employed in keeping up a supply of warm air, both after the opera-

tion of bronchotomy, and in wounds of the neck. Another point of treatment was, to guard against the passing of blood, &c., into the air-passage. The surfaces of the wound must not be brought together directly after the infliction, though that was a blunder which was constantly committed, and the patient was often suffocated in consequence. Danger might arise even though the air-passages were not involved, in consequence of extravasation of blood into the neighbouring cellular tissue. In the case of E. C. this occurred, and when he, (Mr. L.,) was called to see her, he put his fingers into the wound and took out a large clot of blood, which pressed on the air tube. The patient would, probably, otherwise have perished. There was, thus, danger from the practice of sewing up wounds, even although the wind-pipe was not wounded; and yet the sewing up of the wound, as in this case, was continually practised. A case was related in the newspaper of that morning, in which a man had cut his throat with a razor, in the street; he was taken to a neighbouring house, and the wound was sewed up, and it was stated, that he was not likely to recover; he would probably have had a better chance of life had he been left entirely alone. The blood, in these cases, was drawn down the air-passages. The wound should not be interfered with for ten or twelve hours after its infliction, and should be glazed before an attempt was made to bring the surfaces in contact, and this should be done by bandage, so as to steady the head, and approximate the chin to the sternum. If, however, it was very extensive, extending, as is said, from "ear to ear," a suture might be placed near each extremity; but the middle of the wound should be left open, so that there might be space for the ejection of the mucus. There was great danger from the suture of transverse wounds, and no good could accrue from it, for the wound could not possibly unite by the first intention; every thing was opposed to that process. It was not as though the wound was longitudinal, as in the operation of bronchotomy. In that operation, when the tube was taken out, the wound healed quickly, the edges being brought together, and retained by the natural elasticity of the parts. In transverse wounds the case was different, and the constant passage of the air through it, with the action of the muscles around, prevented it from healing by adhesion. It *must* heal, and *would* do so, in every case, when properly watched, by granulation and cicatrization, and it said little for the science of surgery, if the edges were allowed to heal separately.

Patients sometimes died from mischief about the glottis, as from œdema. Here was a representation of this disease, (showing a drawing,) following a wound in the throat. Œdema, as they might know, was a common occurrence around wounds, or ulcers; in other parts of the body, it is generally of little importance; but when it occurred at the top of the air-tube, even to a slight extent, the most serious and dangerous symptoms immediately presented, and required active and energetic interference.

Well, then, having followed these rules for the prevention of bad consequences, and persuaded the patient not in any way to interfere with the cure, the surgeon must give him a due supply of nourishment, and that was best done by the introduction of an elastic tube over the root of the tongue, as occasion required. A common large-sized, elastic, catheter was generally the best instrument for throwing into the stomach a proper quantity of soup, beef-tea, &c. If the patient became low, wine might be necessary. It was seldom necessary to resort to antiphlogistic treatment, uless bronchitis supervened. If much inflammatory swelling came on about the wound, or if the breathing was interrupted by the aukward adaptation of the divided surfaces, and thus the patient was, at any period of the treatment, threatened with fatal suffocation, then it might be proper to open the wind-pipe by a longitudinal incision, lower down, until means were taken to remove the obstruction to the passage of air through the upper part of the tube. Had the case from which the drawing was taken, and in which the man perished, from œdema of the glottis, been under his, (Mr. L.'s,) care, he thought he should have performed tracheotomy, and before the swelling had attained such a dangerous extent.

CORRESPONDENTS.

The cases forwarded by *Mr. Fayrer* and Mr. Macnee, and the communications of *Mr. M. W. Hilles*, and *Mr. C. G. Wilson*, shall be inserted next week. We beg to be furnished with the conclusion of Mr. Wilson's paper at once.

The letter of *Castigator*, relative to the hoax which was successfully practised on the blockheads of the Penny Club Gazette, shall be inserted next week.

The note of *Dr. Whiting* next week.

The communication of *Medicus* shall not be forgotten; but we shall alter the signature, if he offers no objection.

The letter of *F. R. S.*, respecting the award of the Royal Medal, shall appear next week.

English Pharmacopœia.—We are informed, that "D. G. F. Collier intends to put the copyright privileges of the mean and foolish College of Physicians to the test, by forthwith publishing a translation of the new Pharmacopœia, in which every care will be taken to avoid errors in the English version, and to correct mistakes in the Latin."